

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1787.—VOL. XXXIX.

London, Saturday, November 20, 1869.

(WITH) { STAMPED .. SIXPENCE,
(SUPPLEMENT) { UNSTAMPED .. FIVEPENCE

M R. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 1842.)

Mr. CROFTS transacts business in the way of PURCHASE OR SALE of every description of stocks, but particularly BRITISH MINES, at net prices. All orders meet with the utmost punctuality, and advice given as to the nature and eligibility of INVESTMENTS when required.

Mr. CROFTS.—The purchase of these shares is specially recommended.

The engine which is now in course of erection will enable large monthly

turns of tin to be made, which will yield great profits. The prospects of the

mine are splendid, and a rise in price of shares certain.

HOLDERS of mining shares DIFFICULT OF SALE in the open market may find

buyers for the same through Mr. CROFTS' agency. Also parties requiring

advice how to act in the disposal or abandonment of doubtful mining stocks may

profitably avail of Mr. CROFTS' long experience on the market in all cases of

doubt or difficulty, legal or otherwise.

VIRTUOUS LADY.

MR. CROFTS has SPECIAL BUSINESS in the shares of this extraordinary rich

mine, either as BUYER or SELLER. It has lately vastly improved, and the

shares are advancing rapidly. An early application for shares at present

prices is necessary.

M R. W. H. BUMPPUS, STOCK AND SHAREDEALER,
44, THREADNEEDLE STREET, LONDON, E.C., has FOR SALE the

following SHARES, free of commission:

35 Australian Uni. Gold, £19 1/4.
£1 1/2 prem.
50 Anglo-Argent., 18s 6d.
100 Pronostic, 21s. 9d.
50 Frank Mills, £23 1/2.
30 Brynportig, 19s. 6d.
15 Budnick Consols.
50 Crelake, 2s. 5d.
50 Chontales, 15s. 6d.
25 Caldeck Fells, 31s.
70 Drake Walls, 19s.
30 Don Pedro, £3 11 3 p.m.
25 East Seton, £2.
50 E. New Lovell, 12s 9d.
10 East Caradon, £6 11 3

50 East Rosewarne, 2s.
50 East W. Lovell, 13s 3d.
20 Easton, 27s. 6d.
5 Providence, 2s. 6d.
25 Prince of Wales, 25s.
10 Rose and Chiverton.
25 So. Conduffrow, 34s.
100 Taquaril, 3s. 3d.
2 West Chiverton, 25s.
50 West Maria, 27s. 9d.
100 W. Drake Walls, 4s 6d.
50 West Godolphin, 10s.
5 W. Rose Down, 22s.
50 York Peninsula, 6s.
50 Yudananutana, 28s. 6d.

With Particulars of the Tin Market, Advance in the Copper Standard,
Anomalies in the Mining Market, &c.

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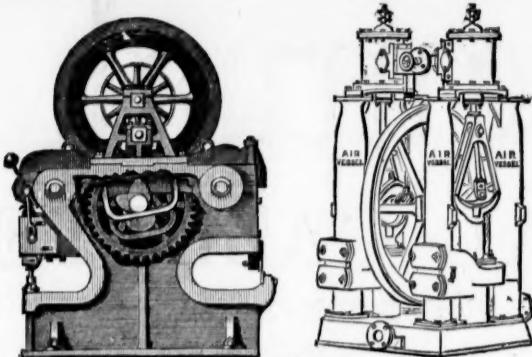
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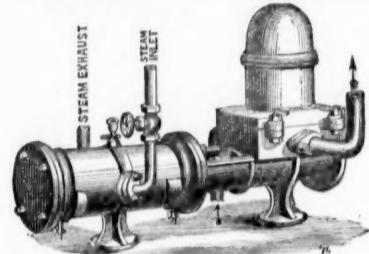
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EAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS,
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PUNCHING MACHINE, BAR SHEARS, AND RAIL
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EGERTON STREET IRON WORKS,
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PATENT UNIVERSAL STEAM PUMPS,
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POWERFUL—SIMPLE—DURABLE—RELIABLE—CHEAP.
SUPERIOR TO ALL OTHER INVENTIONS.

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GAMBLE'S PATENT STEAM LUBRICATOR.
FOR STATIONARY, LOCOMOTIVE, AND STEAM ENGINES.

SELF-ACTING

Lubricates all the valves and internal parts of the cylinder continuously. Effects a most important saving in the oil or tallow. Increases the regularity of working. Prevents frequent repairs.

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CAST STEEL PISTON RODS, CRANK PINS, CON-
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AXLES, SHAFTS and
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DOUBLE SHEAR STEEL | FILES MARKED
BLISTER STEEL | T. TURTON,
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Of 1868
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PEACOCK & BUCHAN
INVENTORS AND
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OF COMPOSITIONS
FOR SHIPS' BOTTOMS
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PEACOCK AND BUCHAN'S
No. 3 COMPOSITION PAINT.

It is superior to all other paints, and, being mixed ready for use, is cheaper. It also lasts longer, will wash without rubbing off, and can be applied by gardeners or labourers, requiring no oil, turpentine, or varnish. It is applicable for all kinds of house painting, greenhouses, vineeries, pit frames, &c.; also for carts, wagons, railway plant, agricultural implements, and MINING purposes, &c., after a successful trial of nearly TWENTY YEARS.

It dries in a few hours with a beautiful brilliant surface, without stickiness or unpleasant smell; and is more economical, and stands longer than *unground* ordinary paint, mixed by hand. It has been opened after ten years, and found to be quite good and ready for use.

As any person can lay it on, it is found to be most economical and useful to country gentlemen, and to the settler in India, Canada, Australia, New Zealand, &c., when living at a distance from a town—enabling every man to be his own painter. Danger from fire on board ship is also prevented. (See pamphlet, with testimonials, sent free on application.)

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MR. ROBERT ORD, JUN., MANAGER, 39, UPPER EAST SMITHFIELD, LONDON;

Or their accredited agents in all parts of the world.

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CURE YOURSELF BY THE ELECTRIC SELF-ADJUSTING CURATIVE AND MAGNETIC BELT.—Sufferers from spermatorrhœa, nervous debility, painful dreams, &c., can now cure themselves by the only guaranteed remedy in Europe, and sanctioned by the FACULTY.

Free for one stamp by W. JAMES, Esq., Percy House, Bedford-square, London.

N. B.—MEDICINE AND FEES SUPERSEDED.

Reference to the leading Physicians of the day.

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IMMENSE SAVING OF LABOUR.
TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT
GRINDERS, MCADAM ROAD MAKERS, &c., &c.

BLAKE'S PATENT STONE BREAKER, OR ORE CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.
It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:

The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.

H. R. Marsden, Esq.

JAMES WILLIAMS.

Ecton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given very satisfaction. Some time after starting the machine a piece of the moveable jaw's about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.

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Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent.

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Welsh Gold Mining Company, Dolgelley.—The stone breaker does its work admirably, crushing the hardest stones and quartz.

WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes for fine road metal, free from dust.

Messrs. ORD and MADDISON, Stone and Lime Merchants, Darlington.

Kirkless Hall, near Wigton.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton.

JOHN LANCASTER.

Ovoco, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour.

WM. G. ROBERTS.

General Fremont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate.

SILAS WILLIAMS.

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H. R. MARSDEN, SOHO FOUNDRY,
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SPEED of LATHES may be advantageously INCREASED FIFTY PER CENT., and upwards; it is the most DURABLE STEEL in the Market, and, unlike all other steel, when forged into the desired shape, it REQUIRES NO HARDENING.

Mushet's Titanic Cast Steel for Lathe Tools, Chisels, Hammers, &c.

MUSHET'S TITANIC BORER STEEL.

Double Shear Steel; Spring Steel; Blister Steel.

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FOREST STEEL WORKS, COLEFORD, GLOUCESTERSHIRE.

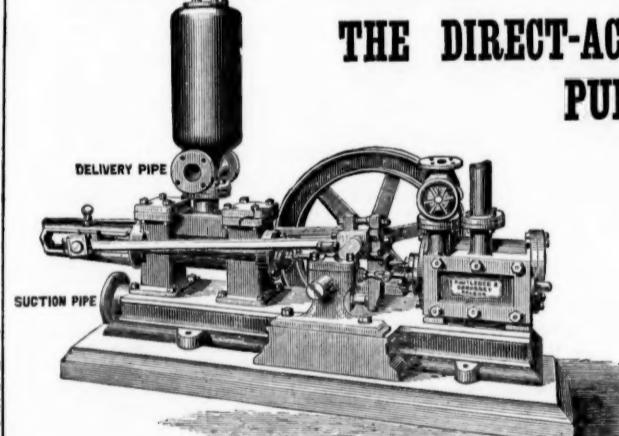
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THE MAKERS OF

THE DIRECT-ACTING DOUBLE HORIZONTAL PUMPING ENGINE.



THESE PUMPING-ENGINES are especially adapted for FORCING WATER OUT OF MINES, being simple in construction and reliable. They have now been at work many years in collieries, &c., and given every satisfaction.

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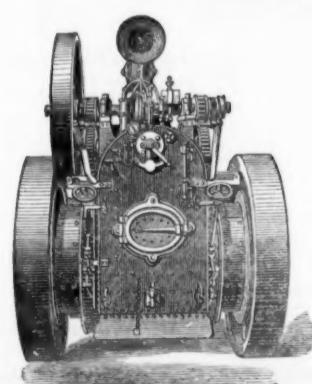
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Especially designed for colliery purposes; also, AIR-COMPRESSING ENGINES, as used in connection with COAL-CUTTING MACHINES, &c.

Further information and prices forwarded on application.

R. and O. are also MAKERS of other classes of PUMPS and WINDING ENGINES.

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PATENT PORTABLE
HAULING AND WINDING ENGINE,
WITH
PATENT DRUM WINDLASSES,
FOR MINING PURPOSES.

This Engine is specially commended to Mining Engineers and others, as by its adoption—

Haulage along inclined drifts is easily and cheaply effected.

The expense of sinking new shafts is greatly reduced, neither foundations nor engine-house being required.

It is available not only for winding, but for pumping, sawing, &c.—a great desideratum at a large colliery.

It can be very quickly removed (being self-propelling), and fixed in any desired position.

Prices and full particulars on application as above, and also references to view the Engine in successful work near Derby, Carnarvon, Haverfordwest, Darlington, and other places.

The Virtuous Lady Mining Company (LIMITED).

INCORPORATED UNDER THE COMPANIES ACTS, 1862 AND 1867.

CAPITAL £15,000, IN 15,000 £1 FULLY PAID-UP SHARES.

N.B.—The whole of the shares are taken up. The present quotation is £2 per share, and a limited number only will be disposed of at that price, as they are rapidly advancing in value.

The directors were chosen at the First General Meeting of Shareholders, which took place on Wednesday, September 1 1869, at the Bedford Hotel, Tavistock.

BANKERS—THE WEST OF ENGLAND AND SOUTH WALES DISTRICT BANK.

SOLICITOR—MR. EDWARD CHILCOTT, Tavistock.

SECRETARY—MR. THOS. J. BARNARD, 5, Abbey Mead, Tavistock.

The Virtuous Lady Mine is situated about 3 miles south-west of the town of Tavistock.

The sett, which is very extensive, and comprises the most highly mineralised ground in the two counties of Devon and Cornwall, is held upon lease for 21 years, from Sir Massey Lopes, Baronet, dated July, 1869, upon a royalty or dues of £18th.

Almost unlimited water-power is available, as the rivers Walkham and Tavy pass through the sett.

Historical records set forth that this mine was worked by the ancients for silver, and that the caverns which were formed by mining industry were in later years inhabited by banditti. It is generally known that well advanced in the present century the mine has returned tens of thousands of tons of rich copper ore. It is, however, quite apparent that in the past the intrinsic value of the property was unknown, and, therefore, never duly appreciated, or it would have been more developed, and the treasures already discovered not left for the present proprietors. It was for years recognised as the mine of mines from its immense returns of rich copper ore, nevertheless the deepest workings are only about 17 fathoms from surface, which will readily show that really practically the mine has hardly been explored at all. The courses of ore so far worked upon are not what are called regularly defined; they are what are termed "flats," they have, however, perfect walls, and when descending into the earth have a beautiful underlie; but suddenly the descent ceases, and the courses of ore run away in a "flat" direction for some considerable distance, when they again take a descent, with a fair underlie. It is from these "flats" that tens of thousands of tons of copper have been extracted, and the horizontal courses alone will unquestionably yield great quantities of ore, as they, comparatively speaking, have thus far been but slightly worked; the "flats" are, however, merely out-throws, yea, threads only of and from the gigantic quartzy lodes which are 100 to 200 feet wide. By a winze or sink that has been put down some 8 fms. in one of the levels the ground below is found producing good and large stones of rich ore, and the evidence appears clear that these immense quartz lodes will when followed to the deep make most extensive lasting deposits of copper ore.

The extensive and remarkable crystallisation and decomposition throughout these great quartz lodes is a further striking evidence of the chemical action caused by affinity, change, or formation of existing very large metallic mineral bodies below, and further, the great caunter lode to the south (upon which operations as shodings only have been done as yet), and dipping to the north, will at about 40 fathoms from surface form a junction with the great north lode, when almost unheard of masses of copper may be expected to be discovered.

The mine is in full operation, a water wheel and crushing machine and all the necessary machinery being in the active course of erection, and temporary dressing floors are laid out in order to dress the ore upon a small scale, until the machinery is put in motion, when more extensive workings generally can be carried on. The machinery will be started by the end of September, when the old work-

N.B.—The machinery was started on Saturday, October 16th, with the greatest success.

ings will be drained, and the shaft commenced to be sunk 15 fathoms deeper and cross-cuts driven to intersect and cut the lodes at that depth, which can hardly fail to yield immense deposits of copper ore; but apart from any new explorations and anticipated great discoveries in entirely new ground, constant enquiries are being made by "tributaries" for "pitches" in the old workings as soon as the mine is drained. To the uninstructed in practical mining it may be observed that "tributaries" will take the only little bit of speculation there may be in the mine, as they receive nothing save a certain share (and this for a limited time only), of the sale of the ores they search for and discover.

We will now draw attention to the assays made by Dr. Phipson:—No. 1 sample, yellow and black ore, clean in hard substance, 20 per cent. copper, 19½ ozs. of silver to the ton; No. 2, peach, prian, yellow and black ore intermixed, 14½ per cent. copper, 16 ozs. of silver to the ton; No. 3, prian, with a little black ore, 6½ per cent. copper, and 10 ozs. of silver to the ton.

An elaborate and most careful general mineral analysis by Dr. Phipson, of the mineralised prian and other matters of the lode now being worked upon, gives a result of the existence of copper, silver, lead, tin, antimony, cobalt, nickel, iron, zinc, and sulphur—strong traces of the whole—but the chief and only paying quantity being copper, the silver contained in it enhancing its value. Mr. J. Harvey, Assayer, of Tavistock, has made several copper assays, the products of different specimens ranging from 6 to 25 per cent. A killas and peach have also been submitted to Dr. Phipson, and Mr. W. Richards, gold and silver assayer, of London, to be tested for gold, by analysis and assay, and out of very small samples, both gentlemen found strong traces of gold. It is not at all unlikely the rich deposits of quartz in the old workings may contain both gold and silver, not visible to the eye, but rich enough to yield a profit upon pulverisation and proper treatment. Reference may be drawn to the fact that this mine has received large sums of money for its quartz specimens, as simply ornamental works of nature, it having been the rule to search every man coming from underground.

Ample capital is provided to put up most extensive and all necessary machinery, and thoroughly explore the mine, and at the same time the parts of the lodes above water level now being worked upon, which are productive in rich ore, and daily growing more valuable, will at once, and more especially when the machinery is in motion, so that the crusher can be used, furnish profits which can only result in handsome dividends at an early date.

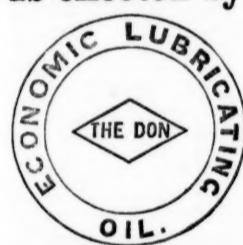
Knowing that reports by mining agents embodied in a prospectus are more or less ignored, none accompany this circular. The mine is in full operation, and can be visited and inspected by any intending investor, mining inspector, or visitor upon their own account, upon application to the secretary for a visiting card.

The company is formed, the shares are all taken up, and the mine stands upon its own merits, open for the world to criticise.

Shares can be purchased of the Secretary, Mr. THOS. J. BARNARD, 5, Abbey Mead, Tavistock, who is prepared to transfer a limited number at £2 10s. per share.

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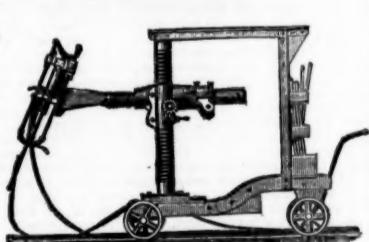
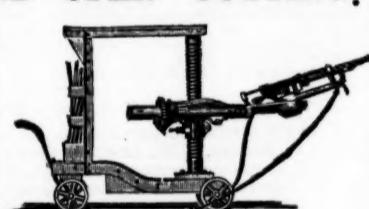
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FOREIGN MINING AND METALLURGY.

The state of the Belgian coal trade continues to improve from day to day; great activity prevails in all the collieries, and extractors anticipate even a further advance in quotations. The condition of affairs, although upon the whole favourable, receives nevertheless rather a sombre tint from the continued want of means of transport on the railway lines—a grievance which is increasing rather than otherwise. Unless some improvement can be secured in this regard it is feared that many merchants and industrialists will be brought to an absolute want of combustible. The Coalowners' Association and the Charleroi Committee of Forgemasters have each addressed representations on the subject to the Minister of Public Works. The Committee of Forgemasters, also, decided at a recent meeting to appeal to all the coalowners' committees of the country, in order that a collective representation may be made to the Government. The price of coal has experienced no material modification in Belgium. The aspect of Belgian metallurgy also remains much the same, although a fresh upward movement in prices is beginning to be talked of; it is not at all improbable that this further advance may take place, as it is expected that important contracts for refining pig, which are on the point of expiring, will only be renewed at an advance. Another consideration is that stocks of pig are, to a great extent, absorbed, while the competition of English pig is sensibly declining. For the present, however—whatever may be in store in the future—prices remain as hitherto. The annual meeting of the John Cockerill Company has just been held, and some interesting information has been afforded as to the progress of the company's affairs during the year ending June 30, 1869. At the close of June, 1868, the staff was reduced to 6070 workmen and employees, and the amount of orders on the order book was 183,540L. The stocks on hand amounted to 10,000 tons of coal, 73,000 tons of minerals, 7500 tons of pig, 5580 tons of miscellaneous iron, 90 tons of steel in bars, six locomotives, and several engines for industrial establishments and manufactories. It was at this time almost impossible to get rid of the coal which had accumulated, or to sell at a distance the pig produced; the sale of iron was also well nigh nil, and it was produced without being ordered. An order for 6000 tons of rails for the Malines and Ternuieuw Railway Company was accepted at very low prices. In its workshops the company had only to execute an engine for a Government mail steamer, a blowing machine, and two locomotives. A contract for 20,000 tons of rails for Roumelia was accepted at a price even less remunerative than that of the Malines and Ternuieuw order; the conditions of payment were also by no means advantageous, but the contract could be executed in a short time, and this consideration decided the administration to proceed with the affair. The result was that some activity reappeared in the collieries, blast-furnaces, and iron works of the company. Some orders for bridges for Russia, and then for Roumelia, but at very low prices, were next accepted, and gave employment to other departments of the company's undertaking. In order to keep the construction shops going, the company succeeded in obtaining an order for a screw-steamer, of 100 horse-power, for Antwerp, but only at lower rates than were offered by English builders. The company also proceeded with the construction of four unorderd locomotives. The state of affairs began to improve towards the end of 1868, a contract for 15,000 tons of rails for Hungary at £2. 14s. 5d. per ton at the works being concluded by the company; another contract for 13,000 tons of rails for the South of Russia was also concluded on nearly the same terms. After this the company was enabled to re-light a blast-furnace, and then a second; the management, also, proceeded with the construction of eight new coke-furnaces and ten puddling-furnaces. The company at the close of June was working with 4 blast-furnaces, 56 puddling-furnaces, and 21 re-heating furnaces, for the production of pig, rails, plates, and iron.

Progress has just been reported to the shareholders in the Railway and Marine Blast-Furnaces, Forges, and Steel Works Company (M.M. Petin Gaudet and Co.). The affairs of the company are stated to have experienced a sensible curtailment in 1868-9, as compared with 1867-8. Thus the sales effected, which amounted in 1867-8 to 1,564,378L, only attained a total of 1,262,248L in 1868-9. The profits realised declined from 141,024L in 1867-8 to 58,945L in 1868-9. After making various deductions and redemptions, the balance available for dividend in respect to 1868-9 amounted to 33,306L; out of this sum a dividend of 12s. is to be paid for the year, absorbing 32,400L, and leaving 906L to be carried forward to 1869-70. The report of J. F. Cail and Co. for 1868-9 states that at the close of July that concern had still work and orders on hand to the estimated value of 212,000L, while since the accounts were made up for the year ending July 31, 1869, further orders have been received to the extent of 64,000L. Other operations are also stated to be "in perspective."

The general state of the Haute-Marne markets remains without change,—that is to say, prices are well sustained, and the demand is active. The condition of the water-courses is improving, a circumstance of no small moment to the works using hydraulic motors. It is proposed to call a meeting of the metallurgists of ten departments in and about the Champagne district, in order to consider the alleged injuries inflicted upon local industry by the recently concluded treaties of commerce, and also by the warrant system. M. Pouyer-Quertier, an implacable opponent of free trade theories, is invited to this meeting. The foundries, forges, and rolling-mills of the Moselle and the Meurthe continue to receive numerous orders, and have still contracts to carry out which will occupy some time to come. White pig has been dealt in at 27. 14s. 4d. to 27. 15s. 2d. per ton for good qualities. A Longwy establishment has, it is true, accepted a contract for the Haute-Marne at 27. 13s. 6d. per ton, but this low rate is not generally current, while Moselle products can only enter the Haute-Marne on condition of being delivered at a cheap price, in consequence of the difference in transport charges. It is stated that the Vezin-Aulnoye Company is about to light a second blast-furnace in the Nord. If we may believe current on the Brussels Comptoir Général, which has purchased the Montaire Works, intends to form under its patronage a company for working the concern. The works of the Ardennes appear to be in an excellent state, rivalling each other in activity in the execution of orders, which are somewhat in arrear. Merchants' iron is in demand, at 87. 8s. per ton for first-class. Notwithstanding this favourable movement, some Belgian and Swedish iron is imported into the district. The last bulletin of the Committee of Forgemasters states that Staffordshire iron is beginning to be introduced upon the Havre market. The committee infers from this that Staffordshire has profited less than Wales or the Cleveland district from the increased demand which has prevailed for rails. The Western of France Railway Company has ordered a 6-ton crane from Messrs. Boigues-Rambour and Co. at 147. 8s. per ton; two similar cranes have been ordered from M. Doré at the same price, as have two 10-ton cranes to be supplied by M. Boigues-Rambour and Co. The Orleans Railway Company has ordered from M. Wegher Lorette a 20-ton crane at 460L, to be delivered free at Ivry.

A rather marked revival has appeared of late in the demand for copper. Tin and zinc have also been in improved demand. Lead has remained comparatively stationary, although an export movement has been remarked to America, where the article has become scarce. Banca tin has found purchasers in Holland at 72½ fls., and Billiton has been dealt in at 71 fls. Advices from Batavia report the sale of 5000 piculs of Billiton at 74½ fls. There has been more animation in zinc at Breslau. Later advices from Rotterdam state that in consequence of the suspension of a London house the tin market has been again disorganised, and that as purchasers temporarily made default the price of Banca had been reduced to 71 fls., and Billiton to 70 fls.

The NEW VADE MECUM (invented and manufactured by Charles H. Vincent, optician, of 23, Windsor-street, Liverpool) consists of a telescope well adapted for tourists, &c., to which is added an excellent microscope of great power and first-class definition, quite equal to others sold at ten times the price. Wonderful as it may seem, the price of this ingenious combination is only 2s. 6d., and Mr. Vincent sends it (carriage free) anywhere, with printed directions, upon receipt of Post Office order, or stamps, to the amount of 2s. 10d.

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Meetings of Public Companies.

GOVERNOR AND COMPANY OF COPPER MINERS IN ENGLAND.

An extraordinary general court was held at the City Terminus Hotel, on Wednesday, to receive the report of the Consultation Committee which was appointed at the last annual general meeting, and a special report of the Court of Assistants.

Sir R. MACDONALD STEPHENSON (Deputy-Governor) in the chair.

The usual preliminaries having been disposed of, the report of the Committee of Consultation was submitted; it contained a recognition of the courtesy the committee had received from the Court of Assistants; from the manager of the works (Mr. Struvé), and from the secretary, and the conclusion to which the committee came was that there surely might be some means of rendering so valuable an establishment available for profitable working, and that in the first instance the court might act upon some suggestions to be hereafter stated, which possibly would produce so desirable a result before contemplating so serious a measure as winding-up or liquidating the concern. It appeared to the committee that, although for a series of years no dividend had been paid to the proprietors, yet with property which had cost so moderate a sum as the capital invested in the works at Cwm Avon, and upon which, since the re-organisation of the company, upwards of £2,000, had been expended in new works and improvements, it might, under altered circumstances, as to rent and royalties, more economy in working, and improvement in the market for metals, again see the profits of the earlier years of the present company restored, and a degree of prosperity attained that would bear out the expectations of the Court of Assistants, and justify the proprietors in accepting the advice tendered to them in the last report, and thus continue to work the establishment at once with advantage to themselves and the numerous families and persons employed at the works. The committee concluded by offering a series of suggestions to which the Court of Assistants reply in a special report.

The report of the Court of Assistants discusses the several questions raised by the committee, and there appears to be a general disposition to adopt the suggestions. As to reducing the expenses of the London office, it is shown that at the present moment no reduction could be made with advantage, but as opportunities occur they will, as heretofore, be taken advantage of. The suggestion whether the expenses of the establishment at Cwm Avon can be diminished is reported upon by Mr. Struvé, who states that he has effected economies equivalent to 700/- per annum, and he is always on the watch to take advantage of any circumstance that may arise to get rid of expense, and he is constantly doing something in that direction. As to the suggestion whether the works' manager should not be brought into closer union with the board, a decision had previously been arrived at by the court that a more frequent attendance of the works' manager in London would be advantageous; but it would not be desirable to have fixed periods for his coming, and they would give him notice whenever they might require his attendance. Referring to the suggestion whether it might not be beneficial to consult an experienced and practical person or persons who could carefully examine the present mode of working in the different manufacturing departments of the works at Cwm Avon, with a view, if practicable, to greater economy, and a cheaper cost of production of any article of manufacture. The court are gratified to observe that the committee have, in this suggestion, also directed attention to possible improvements which the court have had under their serious consideration for some time past, and which are referred to elsewhere. On the point relating to the number of the Court of Assistants, and the remuneration to be paid to them, the committee suggest the reduction of the number of assistants to the statutory minimum, and that the annual remuneration should not exceed £500. It will be remembered that at the last annual court the Court of Assistants made a proposition which differs but slightly from this suggestion, and they have now only to add that the question is one for the consideration and decision of the proprietors, and that in whatever may be decided they will cheerfully concur.

The following resolutions were passed:—

"That the report of the consultation committee, and the special report of the Court of Assistants, embodying the views of the committee, and the court's recommendation thereon, now read, be approved and adopted, and that the Court of Assistants be requested to adopt such measures as they may deem necessary to give effect to their views."

"That the convening of any special general court for the purpose of filling any vacancy which may occur in the Court of Assistants shall not be required until the members of the Court of Assistants shall have become reduced below the statutory minimum; and that until further resolved the remuneration of the Court of Assistants be fixed at £500 per annum."

The details of the proceedings will appear in next week's Journal.

WEST CARADON MINING COMPANY.

A general meeting of shareholders was held at the offices, Union-court, Old Broad-street, on Thursday, "to consider and, if thought advisable, to increase the number of shares to such an extent as the meeting may then and there determine, to make a call, and transact the general business of the company."

Mr. J. NICHOLSON in the chair.

Mr. W. J. LAVINGTON (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed.

The report of the agents was read, as follows:—

Nov. 16.—In presenting you our four-monthly report for the meeting to be held on the 18th inst., we beg to point out to you the working position of the mine, with the great improvement that has taken place, and what we would recommend for the future development. Mariana's shaft is now down 4½ fms. below the 42, on what is called Clym's lode; in this sinking we passed through a similar floor of elvan to what we had in the level above, which split up the lode, however we are now again in the granite, with a regular lode forming in the shaft about 1 ft. wide, containing fluor-spar, mixed up with good stones of copper ore. In the 42 fm. level cross-cut north, within 3 fms. of the shaft, we intersected No. 1 lode, and opened on its course a short distance. When in the influence of the cross-course it produced very rich black and yellow copper ore. Seeing this lode is gone down almost perpendicular, and when the shaft is sunk a few fathoms deeper, they will form a junction, and in our opinion we shall have something good; the class of ground in the shaft is everything that can be desired for the production of mineral. This 42 fm. level cross-cut is extended 17 fms. north, and is within about 6 fms. of Allen's lode, and to force on this object as quickly as possible we are working the men late Saturday evenings and commence early Monday mornings, and which we hope to accomplish in or about six weeks. The same cross-cut is extended south of shaft about 4½ fms.; in this level we have a beautiful class of mineralised ground, and taking the average run of Jope's lode in the old mine, where it produced such large quantities of ore, we calculate to have about 33 fms. to drive to reach the same; this alone we consider to be a good speculation. The 42 is driven east and west of a fine lode of ore, and more especially in the bottom of the level, where it has been worth 3 tons of ore per fathom; in each of the present ends the lode is worth 2 tons per fathom. In the western end we have about 4 fms. to reach the cross-course referred to above coming north from Mariana's shaft; the hoisting of this point is very important, and will not only give us good ventilation, but be a very great advantage in discharging the stuff, and also enable us to drive on this lode west, where we have a long piece of unexplored ground for 140 fms. in length, and they have in the adjoining mine (Caradon Consols) a large and kindly lode coming towards us, which we have seen. It speaks well for this piece of ground, and in the meanwhile we shall commence to sink a winze east in the bottom of the level, where we have the fine lode of ore referred to above. The 30, on Allen's lode, is extended east and west of cross-cut 35 fms., and in places the lode has been worth from 2 to 3 tons of copper ore per fathom; in the present end we have again met with a small crossing, but home against the same the lode was worth 2 tons per fathom, and when opened out on the other side we expect a similar lode; this end is now within 44 fathoms of Hallett's cross-course, and what from we have seen on other lodes about the same they have always been found productive, and we see no reason to doubt having the same here. From this cross-course we have about 43 fms. to Hender's boundary, and should the ore continue to hold on in these levels a new shaft will then be required or about this cross-course, which would command all the eastern ground. A stop in the back of this level is worth from 2½ to 3 tons per fm. At Elliott's engine-shaft, in the eastern part of the mine, we are driving the 70 west, on Vivian's lode, which is producing saving work. All operations below this level, with the exception of a few tribute pitches, are suspended. We have sampled and sold during the past four months about 324 tons of copper ore, and since we have commenced to work at Mariana's we have raised 152 tons of ore. You will perceive by the foregoing remarks that our western ground is opening out exceedingly well, even beyond our expectations at such a shallow depth, and that we are in the way of opening out a pretty deal of ore ground, and in all probability the result will be good and lasting mine.—W. JOHNS, N. RICHARDS.

A statement of accounts was submitted, made up to the end of October, which showed a debit balance of 1917. 13s. The loss upon the four months' operations was £200.

The CHAIRMAN moved that the report be received and entered on the minutes, and that the accounts be passed and allowed.

The SECRETARY explained that up to the present time the cost-sheet had been in arrears one month; but under the recent Stannaries Amendment Act they were compelled to bring up the costs incurred to the date of meeting, hence the committee had charged up the October costs.

Mr. RISLEY asked Capt. John's opinion of the deep workings in the old mine?—Capt. JOHNS said that they had been working those points for a long time with a view of reaching the South Caradon bunch of ore, but up to now they had not been successful.

Mr. COOKE asked the deepest part of the mine?—Capt. JOHNS said the deepest level was 180 fms., about the same depth as South Caradon, where there was a rich bunch of one close up to the boundary.

Mr. MILFORD, having moved the proposition for the reception and adoption of the report and accounts, expressed a very favourable opinion as to the Mariana part of the set, for which, owing to the exertions of Capt. Johns and himself, a new lease was obtained for 21 years, without any expense to the company.

Mr. T. C. MUNDAY wished to know if the accounts had been audited, and, if so, by whom?—Mr. MILFORD said the committee were the auditors, and he would guarantee their correctness.—The motion adopting the report and accounts was put and carried unanimously.

Mr. RISLEY then proposed that the shares be subdivided into 12,288, which was seconded by Mr. PETER WATSON, and which after some discussion was put and carried, after an amendment had been lost to the effect that the number be subdivided into 24,048.

Mr. PETER WATSON then proposed a call of 3s. per share. As to the Mariana part of the set, it was particularly satisfactory to him to find that it was turning out so well, because its development was commenced upon his recommendation; and when he saw the first sod struck he said that within 30 fms. there would be a course of ore.—Capt. JOHNS: That is perfectly true.

Mr. T. C. MUNDAY seconded the proposition that a call of 3s. per share be made, which, after some discussion, was put and carried.

Capt. JOHNS explained that from the mine the property had given 40,000/- in dividends. He had had to struggle with a poor mine, but, whether in adversity or prosperity, he had done his duty. He believed they had a valuable piece of ground opening out at Mariana's, which he hoped would repay the shareholders for their patience and outlay.

After a lengthened discussion relative to the advisability of stopping the deep workings (during which Capt. Jones mentioned that their continuance incurred an outlay of about 100/- per month), it was agreed that, in conformity with the terms of the lease, notice be given to the lords that the deep workings of the mine will be discontinued.

A resolution was passed to the effect that the meeting desired to record its confidence in the management of the mine.

The committee of management were re-elected.—A vote of thanks to the Chairman concluded the proceedings.

TAN-YR-ALLT MINING COMPANY.

The first ordinary general meeting of shareholders was held at the London Tavern, Bishops-gate-street, on Nov. 13,

Mr. NEWLAND RUDGE in the chair.

Mr. F. HODGSON, jun. (the secretary), read the notice convening the meeting.

The CHAIRMAN said that this meeting had been called in compliance with the requirements of the Companies Act, which prescribed that the first general meeting of a company should be held within four months after incorporation. Although the directors had nothing material to add to the information already in the hands of the shareholders, yet being anxious to improve the present otherwise formal occasion, the board would gladly afford any information shareholders might desire. He would, however, in the first place ask the secretary to read the report of their manager, Captain Richard Evans, with the view of eliciting enquiries from the shareholders.

The report stated that, although the progress in sinking the engine-shaft had not been so great as could have been wished (in consequence of the inefficient pumping-power and the hardness of the ground), still a great deal of preparatory and necessary work had been done in driving and enlarging levels, and laying out the mine for operations on an extensive scale. The engine-shaft has been sunk 1 fm. 5 ft. 6 in. below the 14; the south or footwall of the lode is now in the shaft, and a fine course of lead ore; the lode maintains its size and bearing, thus showing its power in passing through the hard ground, and there are also indications of having much easier ground to sink in for the future. The 14 fm. level west has been driven 18 fms. from the engine-shaft, through a continuous course of lead ore, averaging for the whole distance 4 tons to the fathom at least. This end has been discontinued in consequence of the ground shallowing so fast, and from the fact of the half of the forebay being in clay and gossan, yet there is lead extending upwards for 2 ft. from the bottom of the end. The 14 fm. level is driven 16 fms. 5 ft. 6 in. east of the engine-shaft, and produced for the first 5 fms. large rocks of lead ore, weighing from 1 to 5 cwt.; from this point the lode became hard and unproductive, but for the last 2 fms. it has presented a much more favourable appearance, and it is fully expected that another shoot of ore will be met with in driving the level further east. The shallow adit has been enlarged for 15 fathoms east of engine-shaft, and a winze opened to surface for ventilation, where there is a fine lode, composed of spar, barytes, gossan, and lumps of lead. This adit has been driven 16 fathoms west of winze, on one part of the lode, and has a very promising appearance; this will be pushed on with all speed, as it is going into high ground, and will drain the shaft in Parry's field. This shaft has been cleared 9 fathoms 2 ft., and now suspended, being unable to draw the water with barrels. The lode in this shaft has as good an appearance as in any part of the mine, considering the depth, with good lumps of lead ore in the gossan. Surface operations are being pushed on with all possible speed, and it is expected the engine-house will be completed in the course of a week, as well as the engine fixed. The engine-shaft will be at once commenced, so as to receive new pitwork and drawing machinery; this will necessitate the suspension of underground operations for a short time. It is intended walling the shaft from the rock with stone (about 4 fathoms) to the brace, as it will be quite as cheap as timber, and so much more durable. There are about 20 tons of lead ore dressed ready for sale, also 10 tons of undressed. Everything is being done in the most substantial manner, and his confidence in having a lasting and profitable mine is unabated.

The CHAIRMAN, in reply to a question, stated that there were 150 shareholders, and added that since the formation of the company about 11,000/- had been expended in acquiring the right of some additional land, which was not only indispensable for an extension of their future operations, but, at the same time, had fairly doubled the actual value of the company's property.

Mr. STOOS called attention to the statement in the report to the effect that the 14 fm. level west had been discontinued, in consequence of the ground shallowing so fast.—Mr. W. GUNDY (a director) explained that the lode was being carried for 4½ feet wide. They could not tell how much wider the lode was, because it had not been entirely cut through.

Mr. STOOS asked why the end had been discontinued?—Mr. GUNDY said that the end was previously stopped, and for the reason that the ground was shallow to the west, there being only 6 fms. from the level to the surface; but the shaft would be sunk 10 fms. deeper, and at the next level there would be 16 fms. of backs.—Mr. MARGETTS (also a director) added that the lode had been seen in a field beyond the boundary of the company's set, which showed the productive nature of the ground.—Mr. GUNDY said there was no doubt a course of ore going away seaward, for after crossing a small bay it was traced on the other side.—Mr. MARGETTS said that as the ore contained a high percentage of lead and about 11 ozs. of silver to the ton, comparatively small returns would leave a good profit.

Mr. Newland Rudge, Mr. J. Schofield, Mr. W. H. Lindo, Mr. W. Gundy, and Mr. W. G. Margetts were unanimously re-elected directors.

The CHAIRMAN said that under the Articles of Association there was power to appoint six directors. As there were at present only five, the board would be glad of the accession of any large shareholder who might feel disposed to act as a director, although there did not appear to be any necessity for an extended board at present. As the directors had agreed not to accept any remuneration at the mine had been brought into a profitable condition, the question of the election of another director had probably better be deferred till the next meeting. The meeting being of the same opinion, the matter was deferred.

An extraordinary general meeting was then held, for the purpose of considering and, if approved, of passing a special resolution making the following alteration in the company's Articles of Association.—In Article 81, line 2, by striking out the words "and all" to the end of the Article.

The CHAIRMAN said that the above alteration in the Articles was required by the Committee of the Stock Exchange. The clause simply referred to unclaimed dividends.—The Article, as amended, was agreed to.

Mr. GUNDY said he had omitted to mention in the ordinary meeting that the Tan-yr-Alt lode was supposed to run through the Asheton Mine, but on working it was found that although it did not really run through the set, yet that it was in a portion of the mine, some quarter of a mile to the east, whence it carried its head to the sea, leaving Asheton to the right. But the Asheton lode went through Tan-yr-Alt; to the south of their present workings. It was a splendid lode in the Asheton Mine, as it proved itself to be in 1788. It would be reached in the course of the next year upon driving the deeper levels. This added very considerably to the value of the mine.

Mr. MARGETTS said there were three distinct lodes, each having a different dip, and it was hoped they would form a junction in depth, and form an immense deposit of ore.—Mr. GUNDY said the length of ore driven upon since the company possessed the mine, and particularly in the western end, had far exceeded all their expectations, and they did not expect it would have held up as it had done. He should not be at all surprised to find the lode at the next level yielding 10 to 12 tons of ore per fathom— that is, judging from the appearance of the present level.

A vote of thanks to the Chairman concluded the proceedings.

WHEAL KITTY (ST. AGNES) MINING COMPANY.

A general meeting of shareholders was held at the offices, Austin-friars, on Monday, Mr. REECE in the chair.

Mr. E. KING (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed.

A statement of accounts was submitted, which showed a credit balance of 1910. 15s. 9d., the profit upon the three months' operations amounting to 1217.

The report of the manager was read, as follows:—

Nov. 18.—Since the last meeting we have resumed the sinking of the new shaft under the 106, this not being on the course of the lode there is nothing to value, but the men are making fair progress in sinking.—Pryor's Lode: The lode has been cut in the 106 fm. level cross-cut south since the last report, and we are driving east and west of cross-cut, and the lode worth about 12/- per fathom in each level, with a kindly appearance in the west end, which we think will soon further improve. In the 94, driving west of shaft, the lode is worth for tin 2½ per fathom. In the 94, driving east of shaft, the lode is worth for tin 12/- per fathom. In the 82, driving east of shaft, the lode at present is disordered by a cross-course, but shortly hope to get rid of its influence, when we trust the lode will resume its former value—8/- per fathom. In the 82, on the caunter, we have intersected the old lode, which is of a very promising appearance, and worth for tin 12/- per fathom. In the 82, on the old lode, west of Holgate's, is suspended for the present, and will not be resumed until a communication is effected with the 82, on the caunter. The 44, driving west of cross-cut, on the branch is poor. We have met with nothing in the 34, west of new shaft, as yet, but shall continue driving for another 10 fathoms, when we shall drive south with a view to meet the caunter part of Pryor's lode, in which direction we believe it is thrown. There has been a very promising lode discovered in clearing away some ground to the west of the workings on Vottile lode; we merely mention this for your information, and hope in the course of a week or two to speak more definitely on its character. The tribute pitches throughout the mine are much the same as for some time past, and no falling off in the mine.—W. TEAGUE, S. DAVEY, W. POLKINGHORNE.

A letter was read from Mr. Teague, to the effect that the result of the operations during the past three months was satisfactory, and left a very good profit. As a member of the committee, he suggested the declaration of dividends, which would leave about 150/- to be added to the present balance.

The CHAIRMAN having moved that the report be received and entered on the minutes, and that the accounts be passed and allowed, congratulated the shareholders upon the satisfactory progress which the mine continued to make, no less than upon the encouraging prospects which it continued to present. The amount of dividend which the committee intended to propose was the same as that suggested by Mr. Teague—3s. per share—which he had no doubt the shareholders would unanimously adopt.

Mr. KING explained at some length the value and prospects of the different points of operation. He regarded the improving character of the two ends in the 106 fathom level as one of the most encouraging features of the mine. When that lode was first intersected it was small—indeed, its general appearance was so discouraging that the cross-cut was continued for some distance beyond the point of intersection, and when the driving upon it was commenced both ends rapidly opened out in a most encouraging manner, their present value being 12/- per fathom respectively. The importance of this point would be seen when he mentioned that the 94 had been one of the best levels in the mine, the end now being worth 20/- per fathom. Having the old lode in the 82 to value was also an important point. As to Pryor's lode, that had been really a wonder, having throughout the whole of the great depression of the last two or three years yielded at least fair dividends; and if they should be fortunate enough to open out a good sized lode on Vottile, it would greatly assist the old lode, and, at the same time, add considerably to the value of the mine.

The report was ordered to be entered on the minutes, and the accounts were passed and allowed.—Upon the proposition of Col. CLARK, seconded by Mr. BOYCE, a dividend of 3s. per share was declared.

Mr. KING did not think it possible for the mine to be carried on with greater economy, unless it were at the expense of efficiency. A vote of thanks to the Chairman concluded the proceedings.

THE ST. JUST AMALGAMATED MINING COMPANY.

A general meeting of shareholders was held at the offices, New Broad-street, on Wednesday,

my last in the mine department. Judging from the skins at the stamping-mill, I am of good hopes that the produce for this month will be equally as good, if not better, as that of previous months.

GENERAL BRAZILIAN (Gold).—We have had some rain, and the benefit of it is becoming visible in all directions. Native labourers have appeared in fair numbers, and the amount of work done is satisfactory. The health of the establishment has been good.

SAO VICENTE.—Report for September from their Superintendent: The duty done at Phillips's shaft (quartz formation) during the month has been satisfactory, but in the lode in the bottom there are no signs of improvement, and on Capt. Treloar, our consulting engineer, visiting this establishment on the 29th inst., he advised the cessation of all work at this point, and recommended a trial of Humphrey's Mine, where we are informed there is an improving lode. The preliminary works for this object are now in hand. The duty done at Smith's cross-cut (jactoinga formation) has also been good; the extent driven (12 fms. 1½ ft.) has been principally through very bad canga. The end at present is easier for driving, and contains one or two small lines of jactoinga.

CHONTALES GOLD AND SILVER.—The directors have advices from Mr. Bell under date Oct. 6. The civil war still continues, which has prevented any remittance of gold being forwarded this month. It is expected that an amicable arrangement will speedily take place, when the general works at the mines, now confined to limited operations, would be vigorously resumed. The gearing to connect the water-wheel with the stamps is completed, working successfully, and greatly reducing the costs of treating the ore. The stopes at San Antonio Mine are much improved, but until the civil war terminates men cannot be got to develop them. The staff, now reduced to a minimum, continues to work the stamps to the extent they are able, and to collect what gold they can. The health of the establishment continues very good.

San Antonio Report for September.—No. 1 stope, in back of No. 5 level, east of Piper's shaft, has been stopped 21 varas; lode 3 ft. wide, worth 8 dwt., of gold per ton. No. 2 stope, in back of the same level, east of Piper's shaft, has been stopped 30½ varas; lode 2 ft. wide, worth 6 dwt., of gold per ton. This stope, for the first part of the month, was stopped through broken ground, mixed with clay, but for the last week the lode has improved in size and value; now worth 9 dwt. of gold per ton. The quantity of quartz sent to the stamps for the past month is 155 tons, which I estimate to be worth 7 dwt. of gold per ton, equal in all to about 54 ozs. of melted gold.—JOHN TANKIN.

Trinidad Report for September.—During this month No. 3 stope, in the back of Trinidad level, has been stopped 10 varas; lode 2½ ft. wide, yielding 4 dwt. of gold per ton. No. 4 stope has been stopped 12 varas; lode 2½ ft. wide, yielding 4 dwt. of gold per ton. No. 5 stope has been stopped 8 varas; lode 3 ft. wide, yielding 4 dwt. of gold per ton. No. 6 stope has been stopped 7 varas; lode 2½ ft. wide, yielding 4 dwt. of gold per ton. Ores sent to mill as follows:—150 tons, yielding 4 dwt. of gold per ton.—EVANS.

JAVALL.—Capt. Sohns, Oct. 6: During the past month the mill has been put into thorough repair, the platform for quartz behind the stamps has all been newly floored, and everything is now ready to start; all we want is money to pay our men, which we shall not be able to get on bill until peace shall have been restored. I think the best place to erect the steam-engine will be in the place now occupied as officers' room in the mill. The diameter of our line shaft is 3½ in., and I think the connection between it and the engine should be by geared wheels. The mine has not been worked at all this month; a few men have been engaged in doing such repairs as were requisite to ensure no delay when we recommence working. Two lengths of rails have been laid in Pollock's tunnel, west of Seemann's shaft, and the greater part of the rail in Pim's tunnel has been re-laid and new sleepers put down, and a new switch has been made for Dolores shaft. During some heavy rain last month the tramway from the entrance of Pim's tunnel to the end of the mill sank in several places; this has all been raised to a level, and additional supports added. Mr. Nicholson left for Granada on Sept. 6, to see if it were not possible to obtain money, but utterly failed, all business there being at a standstill. Our finances were reduced so low we had not enough to pay for board, and I instructed him to take a bill for 50% or 100% at the best price he could get, but was informed there by all the largest merchants they could not take a bill at \$450 on account of having paid all their cash, besides goods, to the Government. The tax levied has been extremely heavy, bills of short dates have been sent from Granada to Panama for sale, and there only fetched the absurd price of \$448. As I asked for money from England by the August mail I expect to find some come out by the mail due about the 15th, and I have thought it advisable to send Mr. Nicholson to Greytown; so if none arrives from England, he may, perhaps, get a little there. I have thought it useless to send any account of expenditure, as we have only been paying \$15 a month per man for board, which we had the greatest difficulty in obtaining. As soon as we receive money due accounts shall be forwarded. I have this month drawn one bill, No. 141, dated Oct. 5, for 75%, at \$490, in favour of Mr. J. E. Hollenbeck, at 90 days after sight, for account rendered, leaving a balance in our favour of about 30%, as he now has to pay cash on all our goods shipped to San Baldo, as he hitherto received in from Lacayos. The health of the mine and district is excellent. We hear many reports, few of which, however, can be relied upon. It is true last month Julgada was taken by Martinez, but has since been re-taken by the Government. President Guzman and family are, we believe, in Granada, and it is impossible to give any opinion as to how or when it will end. According to the *Panama Star* and Mr. Hollenbeck's advice, there is now every chance that peace will be speedily re-established.

IMPERIAL SILVER QUARRIES.—Lewis Chalmer, Oct. 25: Eighteen feet were made last week. At no period since we commenced operations has the face of the tunnel looked so indicative of close proximity to a ledge. Bunches and streaks of quartz are now getting more frequent, bands of carbonate of lime and gypsum, carrying base metal. Sulphurets cleave the rock in all directions; while water gushes from the face in very considerable streams. The lay of the rock is also just as I would look for it immediately prior to striking a ledge, dipping and crossing the tunnel exactly as it ought.

WEST CANADA.—F. Williams, Nov. 1: Huron Copper Bay: The stope below the 20, east of Stephens's winze, has improved during the last month, especially in the bottom of the 35, where the lode at the present time is worth 2 tons of ore per fathom; this stope yields on an average over 2½ tons of ore per fathom. The stope in the bottom of the 20, west of Palmer's shaft, is not changed since last reported on. The stope below the 20, east of shaft, yields 3 tons of ore per fathom. This block of ground will be finished before the end of the present take. The stope in the bottom of the 35 east yields 3½ tons. The stope in the east and west of Powell's, yields 2 tons per fathom. The stope over the 35, east of Bray's, looks well, and yields over 3 tons of ore per fathom. The stope in the bottom of the 35, east of shaft, yields from 3 to 3½ tons of ore per fathom. The lode at this point has turned out well so far, and, according to present appearances, it will yield large quantities of ore for some time to come. The lode in the 60, west of Bray's, yields 2½ tons of ore per fathom. The part of the lode we have been working on lately at this point is very promising in its appearance, and is yielding good average work. We have resumed the driving of the 50 fm. level, west of Bray's shaft, and hope the lode will improve as we proceed.—Wellington Mine: The stope east of Rowe's shaft, yields 3 tons of ore per fathom. The stope west of the shaft, yields 2½ tons per fathom. We have a full cargo of copper ore in good condition on the wharf ready for shipment, and we are expecting the Acadia here every hour to take it away. Everything connected with the mine is going on well.

PESTARENA UNITED.—T. Roberts, Nov. 11: Pestarena: The end driving north on the lode cut in the 65 fm. level has improved, yielding now tons per fathom, worth 1 oz. of gold per ton.—Aquatique: We have resumed driving the 2nd end north; the lode yields 2 tons of ½ oz. per fathom; we fully expect an improvement in driving this end. The lode in the end of the 33 south yields 5 tons, worth 15 dwt. per ton. The lode in the winze under this level yields 10 tons of ore per fathom, worth 1 oz. per ton. No change to notice in the stope.—Val Toppa: The end south, above Marmo Rosso level, continues to open up ground worth 18 dwt. per ton. The cross-cut west in No. 5 level has reached through the channel of ore-bearing rock mentioned in our last; it proved to be about 4 ft. wide. We are continuing the cross-cut west, as it bids fair for a further improvement. From the want of water in the Marmazza valley at Pestarena, in consequence of the ice in the Anza, the water has failed off a little; we are, however, able to work yet 204 miles; 26 idle this day.

ALAMILLOS.—Nov. 10: The lode in the 4th level, east of La Magdalena shaft, is small and poor, and the ground hard for driving. The 5th level, east of the above shaft, continues unproductive. The 5th level west produces 1 ton of ore per fm. A great length of good lode was opened by this driving in the past month; it is not so large at present. The lode in the 6th level, east of Taylor's engine-shaft, has a good appearance, and contains spots of lead. The lode in the 6th level, west of Taylor's, is open and rough, but quite unproductive. The 5th level, west of Taylor's, yields ½ ton of ore per fm.; the lode is large and strong, with good stones of ore. The 4th level, west of San Adriano shaft, continues unproductive. The 2d level, west of Cox's shaft, is worth 3 tons of ore per fathom; this is being driven to meet the same level, east of San Victor shaft, which passed through an unusual length of good lode last month, but has failed in the last day or two. The 2d level, west of San Victor shaft, contains stones of lead, but is not of much value. The 3d level, east of Crosby's shaft, produces 1 ton of ore per fm.; the lode in this end has a very promising appearance. The 3d level, west of Crosby's cross-cut, is worth 2½ tons of ore per fm.; this is opening splendid tribute ground.—Shafts and Winzes: Sanchez's winze has attained the required depth for a 4th level. Rosa's winze, below the 5th level, yields ½ ton per fm.; this is being sunk through a wide and open lode. The tribute department produced a good quantity of ore in the past month, and the stope are moderately productive at present. The surface work and machinery are going on very regularly. We estimate the raisings for November at 250 tons.

FORTUNA.—Nov. 10: Cane Incosa: The lode in the 110 fm. level, driving west of O'Shea's engine-shaft is divided into small branches, worth ½ ton of ore per fathom. In the 110, east of O'Shea's shaft, the lode is improving, and is likely to become productive shortly. The 100, west of Henry's shaft, yields ½ ton of ore per fathom; the ground is easy, and the lode is of a promising appearance. The lode in the 90, west of Judd's shaft, is very small, yielding ½ ton per fathom. The 80, west of Judd's, is worth 1 ton per fathom; this is opening moderately productive tribute ground. Good progress is being made in the extension of the 80 cross-cut, south of Henry's. The lode in the 50, east of San Pedro shaft, is poor at present. In the 90, east of Addis's shaft, the lode has a kindly appearance, and contains good stones of lead, but not enough to value. The lode in the 80, west of the Lowndes', is unproductive. In the 80, east of Lowndes', the lode is slightly improving, and now produces ½ ton per fathom. The lode in the 70, east of Carro's shaft, is small, and the ground hard for driving.—Shafts and Winzes: The men are getting on very slowly in sinking O'Shea's engine-shaft below the 110 fm. level. Cayetano's winze, below the 55, is going down in a valuable lode, worth 2 tons of ore per fathom.—Los Salidos Mine: The 100 fm. level, east of Buenos Amigos shaft, is worth 1 ton of ore per fathom. This will be hoisted to the same level driven west from Morris's engine-shaft in a few days. The 100, west of Bueno Amigos shaft, yields ½ ton per fathom. The lode is small, and the ground rather hard for driving. The lode in the 90, west of the above shaft, is small and unproductive. The 75, west of San Carlos shaft, is worth 1½ ton of ore per fathom. The lode has improved in this level in the past few days. The 100, east of San Gabriel shaft, produced ½ ton of ore per fathom. The point of the lode has been found on the eastern side of the cross-course—it looks kindly. The 90, east of Cox's shaft, is worth 3 tons of ore per fathom. This is opening up a good length of valuable lode. The lode in the 75, east of San Pablo's shaft, is not quite so productive as it was; it now yields ½ ton of ore per fathom.—Shafts and Winzes:

The men are making progress in sinking Morris's engine-shaft below the 100. In San Miguel's shaft, below the 65, the lode is very small, and the ground hard. Cox's shaft will very shortly be hoisted to the 100 fm. level. Good progress is being made in deepening Palgrave's shaft below the surface. The tribute department has not undergone any change requiring notice. The machinery is in very good working order, and the surface works are going on very regularly. We estimate the raisings for November at 350 tons.

LINARES.—Nov. 10: West of Engine-Shaft: The lode in the 85, west of Warne's engine-shaft, yields 1 ton of ore per fathom; this has passed through a good length of productive ground, but the lode is not quite so good as it was. The lode in the 55, west of San Francisco shaft, continues small, but is worth 1 ton of ore per fathom. The 55, east of this shaft, is opening valuable tribute ground, worth 2 tons per fathom. The lode in the 45, east of above shaft, is small and unproductive. The 31, east of San Francisco shaft, is worth 1 ton of ore per fathom; this is still opening moderately productive ground, although not nearly so good as it was. The lode in the 25, east of San Francisco, is very small and unproductive.—Shafts and Winzes: No. 170 winze, sinking below the 25, yields 1 ton of ore per fathom; the ground is very easy for sinking, and the lode has a kindly appearance. The stopes yielded a very good quantity of ore in the past month, and are fairly productive at present. The machinery and general surface work are going on very regularly. We estimate the raisings for November at 275 tons.—Los Quinteros Mine: The lode in the 45, west of Taylor's engine-shaft, is a little easier for driving through. In the 45, east of above shaft, the lode is small and poor. The 32, west of Cox's shaft, is worth 1 ton per fathom; this has improved greatly in the past few days, and looks very kindly indeed. The 32, east of Taylor's engine-shaft, yields ½ ton per fathom; we have reached the point of the lode on the eastern side of the large cross-course. The lode in the 32, west of San Carlos shaft, is large, but of no actual value at present. The 32, east of San Carlos, yields ½ ton per fm.; this end, though not of much value at present, is looking much better than it was.—Shafts and Winzes: Taylor's engine-shaft, sinking below the 45, is worth 1 ton of ore per fathom. The sinking-lift, penthouse, &c., are all fixed, so that the deepening of the shaft to a 55 fm. level will now be carried on with great regularity and dispatch. The lode in Agustin's winze, below the 32, is very kindly indeed.

The Chamber of Commerce of Elberfeld and Barmer takes cognizance of these proceedings, and in its report to the Minister of Trade and Manufactures for the year 1868, it appears that during that year 1405 cases were brought before the court in question. Of that number, 211 were settled by conciliation without arbitration; 501 by arbitration; and 333 by appeal; but of the last-named a considerable number were also subsequently settled by conciliation at the Haupt Bureau, or Central Chamber. The effect of such a tribunal upon the life and habits of the artisan is, as Mr. Samuelson remarks, obvious. It not only relieves him from the necessity of holding meetings with his co-workers, for the purpose of resisting small or great acts of oppression on the part of his employer, but it brings him into constant and close relations with the latter, so that the grievances, wants, and peculiarities of each class become known to the other. The rough places are made smooth, and the association between them is freed from those asperities which, unfortunately, characterize the relations between capital and labour at home. When it comes to a question of competition with the foreigner, the two are united abroad, whilst here the chronic warfare between employer and employed adds another obstacle to the national prosperity.

The accounts of the Workmen's Educational Union at Munich, of the German Workmen's Self-Culture Unions at Zurich, and of the People's Bank and Hall of Industry at Mayence would each be worthy of detailed notice did space permit, but it must suffice to say that Mr. Samuelson's book is conceived throughout in an excellent spirit, that it contains a vast amount of information, and that there is not a working man in England who will fail to profit by carefully reading and studying it.

TECHNICAL EDUCATION—THE THEORY OF STRAINS.

Few who are engaged in connection with the arts of construction will fail to add to their stock of useful knowledge by studying the very instructive work of Mr. BINDON STONEY, the second volume* of which has just been issued. The volume commences with the consideration of compression and pillars, the author observing that in most of the foregoing theoretic investigations it has been tacitly assumed that the tensile or compressive strength of any material is proportional to its sectional area, whatever that may be. This, however, is not always true in struts and pillars not only against absolute crushing of the material—which in reality rarely occurs—but more especially against flexure and buckling, to resist which a greater amount of material is generally required than theory alone might seem to indicate. Alluding to Mr. Rennie's experiments on copper, brass, tin, and lead, and his observation that when compressed beyond a certain thickness the resistance becomes enormous, Mr. Stoney remarks that we can thus conceive how stone and other materials in the interior of the globe with stand pressure that would crush them into powder at the surface, merely because there is no room for the particles to escape from the surrounding pressure. A long thin pillar, on the contrary—such as a walking-cane—will yield by flexure long before it is crushed; and if the bending be carried so far as to break the pillar the fracture will resemble that due to transverse strain. He points out the distinction to be observed between flexure and crushing, and explains various facts which have been ascertained concerning the crushing strength of pillars of different forms.

From the happy manner in which Mr. Stoney classifies his subject the facilities for study are greatly increased: thus, in treating of pillars he refers first, to short pillars which fail by crushing, the length being under four or five diameters; secondly, to long pillars, which fail by flexure, the length, if both ends are flat and firmly bedded, exceeding 30 diameters for cast-iron and timber, and 60 diameters for wrought-iron, or if both ends are rounded one-half these lengths; and, thirdly, to medium or short flexible pillars, which will yield partly by flexure, partly by crushing, the length, if both ends are flat and firmly bedded, being less than 30 diameters for cast-iron and timber, and 60 diameters for wrought-iron, or, if both ends are rounded, or less than one-half these lengths. The several peculiarities of cast-iron, wrought-iron, steel, and other metals, timber, stone, brick, cement, and glass are in turn referred to; and in subsequent chapters the author fully treats of extension, shearing strain, elasticity and set, temperature, flanges, web, cross-bracing, cross-girders, deflection, camber, and depth of girders. Connexions are likewise referred to, and there are elaborate and very valuable chapters on Working Strains and Working Load, and on the Estimation of Girder Work. By way of Appendix, a large number of details, with tables and diagrams, are given, which cannot fail to prove of great utility to the student.

The work throughout is a thoroughly practical and exhaustive treatise upon the subject, and one from which the young engineer can derive more sound and useful practical information than from many more costly and extensive works.

* "The Theory of Strains in Girders and Similar Structures, with Observations on the Application of Theory to Practice." By BINDON B. STONEY, B.A., M. Inst. C.E., Engineer to the Dublin Port and Docks Board. London: Longmans, Green, and Co.

MECHANICAL MOVEMENTS.—The importance of a thorough knowledge of the various means which from time to time have been tested or proposed for the transmission of mechanical power, whether to artizans, inventors, or others, is well known; and there can be little doubt that by the study of such an admirable collection of diagrams as that contained in "Five Hundred and Seven Mechanical Movements," just published by Messrs. Trübner and Co., of Paternoster-row. The collection embraces all those movements which are most important in dynamics, hydraulics, pneumatics, steam-engines, mill and other engineering, presses, horology, and miscellaneous machinery, including many entirely original movements, either not yet or only recently come into use. The movements have been from time to time illustrated and described in the *American Artisan*, of which the author, Mr. HENRY T. BROWN, is editor, but as they are scattered over five volumes of that journal it has become very inconvenient to refer to them. They are now brought together in a neat little volume, which will prove of general utility, and deserves extensive patronage.

[ADVERTISEMENT.]

From Mr. J. J. REYNOLDS:—The Market for British Mines has been firm during the past week. The rise in DEVON GREAT CONSOLS has been supported. EAST LOVELL shares have been speculated in freely, at a variation of 21, in the quotations. This mine continues to be a favourite medium for speculation. Nevertheless, the temper as well as the pockets of the supporters of this market must have been somewhat tried during the past fortnight. The VAN and other mines are firm, at last week's prices. The Metal Markets are likely to remain without rise of any importance up to the end of the year, after which we may expect an advance in prices. Further information from the Welsh mines induces me to think that those already before the public do not include all those that are likely to prove sources of great profit. One especially has been mentioned to me as being possessed of all the necessary properties for being made the source of wealth to the fortunate proprietors. I have been requested not to give it publicity, but any of my clients can have the necessary information, that they may invest whilst there is still a chance of realising handsome returns for their investment. The best authorities in practical mining have been consulted on the discoveries already made, and those which are so probable; and men whose names have been identified with successful mining for the last 30 years bear testimony to the importance of the lead already discovered. The HAMMETT TIN MINE still engrosses much attention, and anyone who will visit this very interesting property will be amply repaid for their trouble and expense. The ground is being opened that will give profits for many years, and, as shares can be purchased at a comparatively low price, no time should be lost in doing so. For immediate purchase, I recommend the VAN Mine and West Hammett, as among the best dividend mines, and South Condurrow, East Seton, Hammett, and Trevrarrack, rapidly increasing in value, best non-dividend.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

BODCOLL.—I shall be obliged if in your impression of Saturday you will contradict the statements regarding us and our agent at Tygwyn which were published in the Journal of Nov. 13, under the heading of Mining Notabilia, as they are entirely without truth.—H. E. TAYLOR: Aberystwith, Nov. 18.

EAST WHEAL LOVELL.—I find in my report of Nov. 3 to Mr. A. Broad, which was hastily written, I made a mistake in stating the granite had projected 18 feet from the former western end of the shaft; it should have been 8 feet only, which I informed Capt. Quenell on Nov. 10, and did not deny having written the report, but said that Mr. Broad must have made the mistake, and since find I was incorrect. The report was perfectly true with the exception of the error referred to. I have been given to understand that every un-concerned agent who inspected the mine on that day reported unfavourably. I have this day again inspected the mine, and am pleased to say the prospects are greatly improved, the deposit of tin in the shaft is very rich, and lengthening westward under the granite. The deposit on the south lode also has improved since Nov. 3.—W. PASCOE (South Wheal Frances): Nov. 17.

NEW PEMBROKE.—Capt. Puckey say—We have one tribute pitch working in the back of the 60, near the cross-course, at 5s. in 11. The tributaries are paid 5s. per ton for tin, and are getting fair wages. We have sold in the past four months 27 tons of black tin, which has realised 2000s., and about 300s. worth of copper ore, which has more than paid the ordinary working cost of the mine. The additional cost incurred is in consequence of materials and erection of new machinery requisite for the further development of the mine, and which is considerably adding to the value of the plant. We have great pleasure in informing the shareholders that since the last general meeting the value of the mine has considerably increased from the good discoveries made in the eastern part, and the future prospects for opening out deeper levels never looked so encouraging as at the present time.

The Old Treburgett Silver and Lead MINING COMPANY (LIMITED),

CAPITAL £30,000 IN 30,000 SHARES OF £1 EACH.

First issue, 20,000, of which 10,000 fully paid up will be issued to the vendor; 5s. per share payable on application, 5s. on allotment, and the balance as required, or the full amount may at once be paid up.

DIRECTORS.

W. G. CRAIG, Esq., Clydesdale House, Highbury New Park, N.

D. EATON, Esq., 13A, Great Marlborough-street, London, W.

T. A. MASEY, Esq., 6, Crown Office Row, Temple, E.C.

With power to add to their number from the general body of shareholders.

BANKERS—THE CITY BANK, 5, Threadneedle-street, London, E.C.

CONSULTING MINING ENGINEER—DAVID FORBES, Esq., F.R.S., A.I.C.E., &c., 11, York-place, W.

SECRETARY—J. H. TILLY, Esq., 1, Circus-place, London Wall, London, E.C.

This valuable mine, situated in the parish of St. Teath, Cornwall, was worked some thirty years ago, with great success, solely as a lead mine upon one lode only, and merely to the depth of 60 fathoms. The existence of true silver ore was not then recognised, as it did not occur along with the lead ore, but in the quartz side walls. It is now proposed to erect an engine of sufficient power to enable the mine to be extended and worked in depth, and also to take down the capels containing the silver ore left standing in the old workings.

A specimen of the pure silver ore, picked up by Mr. David Forbes at the mine, gave 9.96 per cent., or 3253 ozs. 12 dwts. of fine silver to the ton, and a specimen of the lead ore as much as 69 ozs. 5 dwts. of silver to the ton.

A ton of the silver ore, reduced by Messrs. Betts and Son, Birmingham, contained silver to the value of £28 per ton, and a parcel of the lead ore from the adit, without being crushed or dressed, forwarded to Messrs. Bath and Son, Swansea, realised at the rate of £24 a ton.

The directors have personally visited the mines, accompanied by Mr. David Forbes, F.R.S., and believe that the company possesses more than ordinary prospects of success; from the combined favourable features of the mine—the probable smallness of the working capital required—the short time necessary to bring the mine into actual operation—the immediate return of silver ore in the capels standing in the levels—and the high market value of the ores.

The directors invite special attention to the reports from Mr. DAVID FORBES, Mr. JEHU HITCHINS, Captain S. BENNETT, and Captain PHILIP.

Prospectuses, reports, specimens of ore, and Articles of Association, can be seen at the offices of the company, as well as an agreement, dated the 25th August, 1869, made between John Henry Tilly, as trustee for the company, and Thomas Adair Masey.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS,

MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of all risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years' active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge or commission.

GREAT NORTH LAXEY—("Client").—The produce, we believe, does not yet meet the expenditure by about 1000 per month, but the mine is improving, and increased returns are promised. Looking at its situation in regard to Great Laxey, we cannot but still think that ultimate success will reward the patience of the shareholders.

SATURDAY.—Market very quiet. East Lovells steady, at quotations. Hingston Down firm. East Lovell, 19 to 20; Hingston Down, 22s. 6d. to 25s.; West Chiverton, 56 to 58; Bwch Consols, 3 to 3½; Broadford, 3½ to 3½; Devon Great Consols, 140 to 150; Australian United, 3½ to 3½; Prince of Wales, 22s. to 25s.; Tadgarill, 12s. 6d. to 13s. 6d.; West Chiverton, 56 to 58; North Trecerry, 11s. to 12s.

TUESDAY.—Market very quiet. West Marla firmer. East Lovell flatter. West Marla, 26s. to 27s. 6d.; East Lovell, 17½ to 18½; East Cardon, 6½ to 7; Chiverton Moor, 3½ to 4; East Seton, 34s. to 36s.; Chontales, 14s. to 16s.; Prince of Wales, 22s. to 25s.; Bwch Consols, 3 to 3½; Broadford, 3½ to 3½; West Chiverton, 56 to 58; Grenville, 34s. to 36s.

WEDNESDAY.—With the exception of a demand for Hingston Down, the market continues inactive. Hingston Down, 30s. to 35s.; West Chiverton, 56 to 58; Grenville, 38 to 40; Great Laxey, 18½ to 19½; East Lovell, 18½ to 19½; Great Vor, 13½ to 14; Australian United, 3½ to 3½; Bwch Consols, 3 to 3½; East Cardon, 6½ to 7; Frontino, 21s. to 23s.; West Marla, 25s. to 30s.; Prince of Wales, 22s. to 25s.; East Seton, 2 to 2½; Chontales, 14s. to 16s.

THURSDAY.—Market quiet. Shares chiefly dealt in are Grenville, Crebor, Hingston Down, and East Lovell. Grenville, 37s. 6d. to 42s. 6d.; Crebor, 9s. to 11s.; Hingston Down, 32s. to 34s.; East Lovell, 18½ to 19½; Prince of Wales, 24s. to 26s.; Providence, 34 to 36; West Chiverton, 56 to 58; Bassett, 40 to 45; Seton, 25 to 27; Don Pedro, 4½ to 4½; Bwch Consols, 3 to 3½; East Cardon, 6½ to 7½; Broadford, 3½ to 3½; Australian United, 3½ to 3½; Chontales, 13s. to 15s.

FRIDAY.—Market very quiet, and prices nominal. West Chiverton, 56 to 58; East Lovell, 18½ to 19½; Tincroft, 19 to 20; Hingston Down, 30s. to 35s.; Bassett, 40 to 45; Grenville, 37s. 6d. to 42s. 6d.; Chiverton Moor, 3½ to 3½; Great Laxey, 19 to 19½; Bwch Consols, 3 to 3½; Australian United, 3½ to 3½; Don Pedro, 4½ to 4½.

SEPARATING ORES.—Mr. G. GREEN, Aberystwith, proposes to use classifiers in combination with bundles. The classifiers are of graduated sizes, the first in order being the smallest, and the current of water with pulverised ores in suspension flows through them at different speeds, so that in the first and smallest, the current being the strongest, the largest particles are deposited, and smaller ones in the next, and so on. The matters deposited in each classifier, pass off with some water by an outlet at the bottom, and flow thence to bundle.

WHITE LEAD.—The invention of Messrs. J. MAJOR and W. WRIGHT, Swallow-street, and G. H. JONES, Alpha-road, consists in the manufacture of white lead in a closed chamber or chambers, heated artificially, without the employment of spent tan, or such like fermenting materials, or earthenware pots, as in the methods now in use. The necessary vapour or vapours, and gas or gases—for instance, watery vapour, ammoniacal vapour, acetic acid vapour, pyrogallous acid vapour, hydrochloric acid gas, and carbonic acid gas, which may be provided in any convenient manner—are fed into and through the chamber or chambers containing the lead or compounds to be converted into white lead, these vapours and gases being properly regulated during their course through the same in any convenient manner.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending Nov. 14 was 9261. 0s. 9d.

very wet, which at the present time is rather spare for progress. In the 142 end, west of the shaft, the driving is still being continued by the side of the lode. In the 130 cross-cut, driving north, we have not cut through the north part of the lode; in the present end the lode is composed of hard quartz, mixed with gossan, and unproductive for tin. In the winze sinking below the 130, west of shaft, no lode has been taken down for this month. The lode in the stopes at the different levels is still very large, and has a very promising appearance for improvement, although at present only producing low quality work for tin.

CWM ERFIN.—Nov. 16: Taylor's shaft is now the required depth for the 20, and the men are engaged cutting plat, preparatory to sinking below the same. The lode has rather increased in size during the past week, being at this time 15 in. wide, containing quartz, clay-slate, and spots of copper, and looking more promising. The lode in the 32, coming forth under the said shaft, has very much improved in the last few days; the lode in the present end is 5 ft. wide, composed of clay-slate, quartz, copper, and a good mixture of silver-lead ore, worth at this time 15 cwt. of the latter per fathom. This level is being driven forward by six men, and is at this time about 20 fathoms behind Taylor's shaft. Very good progress has been made in enlarging and securing the 40, between the engine and drawing shafts, during the last four weeks, and we expect by the end of the present take (another month) to have this part completed, and a good railroad laid down from shaft to shaft. The lode in the stopes in the bottom of the 20 is 4 ft. wide, and worth from 2 to 1 ton of lead ore per fm. The lode in the rise over the back of the deep adit level is 18 in. wide, but of no value. We have 16 men employed in the various stopes over the back of this level, where the lode will yield on an average 1½ ton of lead ore per fathom. The lode in Taylor's drift, going east of the boundary, is small, and of no value. The lode in the 140, west of shaft, has been made in enlarging and securing the 40, between the engine and drawing shafts, during the last four weeks, and we expect by the end of the present take (another month) to have this part completed, and a good railroad laid down from shaft to shaft. The lode in the stopes in the bottom of the 20 is 4 ft. wide, and worth from 2 to 1 ton of lead ore per fm. The lode in the rise over the back of ditto is ½ yard wide, composed of killas, decomposed quartz, and cubes of blende—a kindly lode, but of no value. The lode in the stopes over the back of ditto, 35 fathoms east of the boundary, is 4 ft. wide, and worth 1 ton of lead ore per fathom. The lode in William's level, east of the boundary, is still very poor, and its course or bearing is far too much north to be productive for mineral. We do not find that anything has taken off in the south side.

DOLWEN.—David Evans, Nov. 18: We are not through the north lode. I will advise you so soon as we cut the north wall.

EAST BASSET.—John Sean, Nov. 17: In the 140, west of new shaft, on the south lode, the lode is 2 feet wide, producing occasional stones of copper ore. In the 140, west of new shaft, on the middle lode, the lode is 2 feet wide, unproductive. In the 130 fm. level cross-cut, south of new shaft, we have not cut any other lode or branch that reported on. In the 130 fathom level cross-cut, north towards the tin lode, no change to notice. The stopes in back of the 125, on the south lode, west of new shaft, is worth 5s. per fathom for copper ore. The tribute pitches are much the same as for some time past.

EAST GUINNISLAKE AND SOUTH BEDFORD CONSOLS.—J. Bray, Nov. 17: In the 14 fm. level, east of Impham shaft, the lode is 4½ feet wide, composed of spar, mundic, and ore, producing of the latter 3 tons per fathom. The lode in the 105, west of shaft, the lode is 12 inches wide, producing spar, mundic, and peach, with good stones of yellow ore.

EAST ROSEWARNE.—C. Glasson, Nov. 19: In the 125, west of King's shaft, we have met with a slide, which has disordered the lode for the present. I have no doubt the lode will resume its usual appearance as soon as we get out of its influence. In the 115, west of King's shaft, the lode is 10 in. wide, worth 5s. per fathom. In the 105, west of shaft, the lode is 12 inches wide, producing stones of copper ore, and spar, and not of much value.

EAST CARN BREA.—I. Richards, Nov. 18: The tip-plat at the 100 is made complete, and the men have resumed the sinking of Thomas's engine-shaft below this point.—Thomas's Engine-shaft, No. 3 Lode: In the 100 east, the lode is 2½ ft. wide, consisting of capel, quartz, fluor, mundic, and very fine stones of tin and copper ores. The lode in Tom's rise, in back of the 90 west, is 1 ft. wide, composed of capel, quartz, fluor, mundic, and a little copper ore. The ground in Sandy's cross-cut north, at the 80 west, is favourable for exploring. The lode in the 80 west is 15 in. wide, and worth 1 ton of copper ore per fathom. The ground in the cross-cut north of the 80 west is hard and difficult to explore.—Buckley's Shaft, No. 2 Lode: In Dunston's rise, in back of the 80 west, the lode is 1½ ft. wide, composed of quartz, capel, fluor, mundic, and good stones of copper ore. The lode in the 70 west is 1 ft. wide, composed of quartz, fluor, mundic, capel, and saving work of copper ore. The lode in Goldsworthy's rise, in back of the 70 east, is 15 in. wide, consisting of capel, quartz, fluor, mundic, and stones of copper ore. The lode in the 60 west is 1 foot wide, composed of quartz, capel, fluor, mundic, and a little copper ore.

EAST WHEAL LOVELL.—R. Quentall, Nov. 17: I have much pleasure in saying that the mine is looking first-rate. Another falsehood has been circulated this week, I understand, to the effect that the eastern end has again failed. I beg to say we have confined our operations westward, and in the bottom of the shaft, where we have a splendid lode. We sold our tin yesterday fortnight, and we have now between 13 and 14 tons in the hutch ready for sale. The south lode and new discovery are as reported last week.

FRANK MILLS.—J. Cornish, F. Cornish, N. Addems, Nov. 17: There is no change in the character of the lode in the 145 fm. level north end since our last report; the part of the lode being carried consists of white iron, quartz, and occasional spots of lead ore, but not enough of the latter to value. We have commenced a rise in back of the 145 south, but have not yet taken down any lode, and therefore we cannot at present ascertain its value. The 130 fm. level south end, on east lode, is without alteration. We have communicated by cross-cutting from the east to west lode at the 100 south, which has well ventilated these levels. We have resumed driving the 100 end south, on the west lode, which is yielding good saving work, and presenting a very kindly appearance. In the cross-cut west from this level north we have not yet intersected any more lode; the ground being of the most favourable description. The 84 fm. level north end is presenting a very promising appearance, now worth ½ ton of lead ore per fathom, and has every indication of becoming further productive as we advance. We have now three stopes in back of this level, each yielding about ¾ ton of lead ore per fathom. The 72 fm. level north end, on the western part of the lode, is without change since last reported. The stopes in back of this level, on east lode, is 6 ft. wide, principally composed of capel, spar, and mundic, intermixed with ore. We purpose putting up a rise some short distance in the back of this level for the twofold purpose of proving the lode in that direction, and opening out some available ore ground, to be taken away at the best advantage. The lode in the 70 fm. level, east from engine-shafts, is worth 1 ton of ore per fathom. The lode in Hancock's lode, one stope in the back of the 60, on the east branch, is yielding ½ ton of lead ore per fathom. The stope to the south at this level has been put through to the 45 fm. level. We shall shortly commence another stope adjoining to the north of the latter. All other parts of the mine are without any change. The machinery is all in good order, and working well.

GAWTON COPPER.—G. Rowe, G. Rowe, Jun., Nov. 18: The ground in King's engine-shaft, sinking below the 82 fathom level, is without change since last reported on, being mixed up with spar and capels. The lode in the 82 fathom level, east of said shaft, is still showing a very kindly appearance, yielding 2 tons of good quality ore per fathom, and the ground improved for progress. The lode in the 82 fm. level west is 6 ft. wide, principally composed of capel, spar, and mundic, intermixed with ore. We purpose putting up a rise some short distance in the back of this level for the twofold purpose of proving the lode in that direction, and opening out some available ore ground, to be taken away at the best advantage. The lode in the 70 fm. level, east from engine-shafts, is worth 1 ton of ore per fathom. The lode in Nicoll's stope, in the bottom of the 60, east of Ferrell's winze, is worth 6 tons of ore per fathom. The lode in Willoughby's stope, in the back of the 70 east, is improved, worth 5 tons of ore per fm. All other points of operation are without change. We are busily engaged in preparing for our next sampling, which we calculate will be over 200 tons of copper ore.

GOGINAN.—Nov. 16: The lode in the 110, east of winze, is worth 16 cwt. of lead ore per fathom. In the stope over this level, 10 fm. east of winze, the lode is large, and yields about 17 cwt. of lead ore per fathom. There is no material change in the lode at the 100 east, it being rather soft to produce much ore. The lode in the four stope over this level varies from 3 to 9 ft. wide, and will produce on an average 14 cwt. of lead ore per fathom. A communication has been effected between the 70 east and west, which has well ventilated that part of the mine; and as soon as we get the stope cleared we shall continue the level on westward, where we hope to open out some ore ground. The tribute pitches in the old part of the mine yield on an average 11 cwt. of lead ore per fathom. All the surface work is going on regularly.

GREAT LAXEY.—R. Rowe, Nov. 16: The mine is now quite clear of water, the driving of the 220 is resumed, and preparations are made for again sinking the engine-shaft. The 210, driving north, continues to be worth about 40s. per fathom. Owing to so much water in the 200, north of the slide, we are obliged to drive chiefly by the side of the lode; as far as we can judge, is now worth about 40s. per fathom. In the 190 we are proving the full width of the lode by taking off the hanging side; it is not so rich as we expected; the lode at present is worth 50s. per fathom. The lode in the 180 fm. level end, and in the side of the level, is worth just as last reported—60d. and 20s. per fathom respectively. The 165 fm. level end is worth 40s. per fathom. In the 155 fm. level cross-cut we have intersected the eastern part of the lode, which in the bottom of the level is worth 20s. per fathom. We have commenced to sink a stope on this to communicate with some of our best stope in the roof of the 165 fm. level. In the 145 fm. level end the lode has become a little smaller, but is just as good for lead, worth 2 tons to the fathom.—Dumbell's: The lode in the engine-shaft, a sinking below the

ducing stones of lead; this lode presents indications almost to warrant a bunch of lead.—**No. 2 Lode:** The lode in the 50, north from No. 2 shaft, is 1 ft. wide, composed of friable quartz, mastic, and flookan, and looks very favourable for lead. The lode in the winze sinking below the 40 north is 2 ft. wide, composed of white iron, with good lumps of lead, but not at present to value.

GREAT ROCK.—**J. Kamp**, Nov. 17: The lode in the 12, east of engine-shaft, is still looking very promising, although not producing as much lead as when last reported. I will now push on this level with all possible speed to the winze in the bottom of the deep adit, where there is a lode gone down worth fully 2 tons of lead per fathom. I will also push the 12 west as soon as the skip is brought down to draw away the stuff; there has been no lode taken down since last reported in the rise west of deep adit, but I think we have a good lode here to strip down after the rise is communicated to the 6. The lode in the level, west of deep adit, on No. 1 lode, is looking better, and likely to improve, now producing some nice spots of lead, similar to the ground we had before we cut the other branch. There is no other alteration. Surface operations are progressing as well as the weather will permit, and the drawing-machine will soon be ready.

GREAT WESTERN.—**Edward Rogers, Edmund Rogers**, Nov. 17: **Fisher's Lode:** Mitchell's engine-shaft is sunk 3 fms. 0 ft. 6 in. below the 20. At Pressure shaft we are cutting ground for bringing the water in to Mitchell's engine-shaft through the 20. In the 10, driving west of Jones's shaft, the lode is 1 ft. wide, worth 27 per fathom. In the rise in the back of the deep adit the lode is 3 1/2 ft. wide, worth 61 per fathom. In the 30, driving east of Annie's shaft, the lode is without alteration since last reported on, worth 37 per fathom, and opening tribute ground.—**Middle Lode:** In the 30, driving east of Curtis's shaft, the lode is 2 ft. wide, worth 77 per fathom. In the end driving west in this level the lode is 3 ft. wide, worth 51 per fathom. In the 20, driving east, the lode is 1 ft. wide, worth 41 per fathom. In the winze in the bottom of this level the lode is worth 127 per fathom. In the 20, driving west of Curtis's shaft, the lode is 18 ft. wide, worth 61 per fathom. In the 10, rise in back of the adit, west of White's shaft, the lode is in a disordered state, and unproductive.—**North Lode:** In the adit level, driving east of the eastern shaft, the lode is 3 ft. wide, worth 37 per fathom, and opening good tribute ground. At surface we have completed the excavation for the bob-plat at Mitchell's and the Pressure shafts; the masons will commence to build the same in a day or two.

GREAT WHEAL BADDERN.—**Wm. Giles, J. Jenkins**, Nov. 15: We have resumed the drivage west or the lead lode, it shall be driven with all possible speed; the ground at present is hard, and spare for driving, but we are expecting this ground will soon change for the better, and then, no doubt, the lode will likewise change for good.

GWYDYN PARK.—**Wm. Smyth**, Nov. 16: The lode in the Gwyn Lithion deep adit end is of the same character as when last reported; the ground still continues a little more favourable for progress. There is no particular change in the Vuchel's deep adit.

HARWOOD CONSOLS.—**T. Neill**, Nov. 17: The sinking of the new engine-shaft is progressing very satisfactorily, the ground being good and very congenial for copper ore, and the cutting of this lode is looked forward to with great interest; at present the lode is of more than ordinary size and character.

HINGSTON DOWN CONSOLS.—**J. Richards**, Nov. 16: In the 140 fm. level cross-cut north the ground is hard and slow for progress. In the 140 west the lode is from 5 to 6 ft. wide, composed of fine capel, mastic, and quartz, and ore, worth fully 207 per fathom. A great quantity of water continues to flow from the end, and the appearances altogether present the strongest indications of a good course of ore in connection therewith. In the stopes in the back of the 130 east the lode is worth 1 1/2 ton of ore per fathom. In the 110 west the ground is moderately favourable between two parts of the lode; and in blasting hole in the north side of the drivage a portion of the north part of the lode is exposed to view, and yields good stones of ore. In the winze sinking below the 100 west, which is down 6 ft., the ore portion of the lode is on an average 1 ft. wide, producing 3 tons of ore, worth, as per assay, 13 1/2 per cent. of copper, or, at the present low standard, 257 per fathom for the length carried (9 feet). In the rise in the back of the 100 the ground is a mixture of killas and quartz, and is slow for progress. In the deep adit level there is no alteration.

HINGSTON DOWN CONSOLS.—**J. Richards**, Nov. 17: In the 140 west the lode is still from 5 to 6 ft. wide, worth fully 207 per fathom. In the winze sinking below the 100 west the lode is quite equal to yesterday's valuation for copper—for length of sink (9 ft.) 307 per fathom, with every appearance of a continuation, and the ore proves on assay to contain 7 ozs. of silver per ton.

IMPERIAL.—**E. Pearse**, Nov. 18: The lode in the 30, west of the engine-shaft, looks very promising, and is producing good rocks of lead ore. There has not been anything done in the winze below the 20 since last reported on. The tribute pitch in the back of the 20 is producing some good work, and the men are earning wages. We shall sample the 20 tons of lead spoken of in my last report on Monday next.

LILWYN TEIFY.—**M. Barber**, Nov. 18: The 50, east of the eastern shaft, is wholly in lode, being composed of friable quartz, clay-slate, spotted with lead, mastic, and copper ore, discharging quite as much water as before, and is of a very promising character. Judging from the general appearance of the lode in the level above, I expect this end will shortly improve. I have set the winze to sink below the 16 to four men, at 32. 10s. per fathom, exclusive of paying for wheeling and drawing the stuff; now down 9 ft., with a leader of lead against the hanging-wall, yielding fully 1 ton of lead ore per fathom, and is of a very promising character.

MAES-Y-SAFN.—**N. Tregay**, Nov. 17: The 370 east and the 350 west of Grosvenor's shaft are much the same as when last reported. The 310 west is producing 1 ft. 6 in. in a fine looking lode in the end, producing good lumps of lead. The 370 west is producing 1 1/2 ton per fathom. The 350 west is producing 1 ton per fathom. The 290, east of No. 3 shaft, has improved, it is now worth 1 ton per fathom. There is a fine looking lode in No. 2 shaft, but not producing any lead. The mine is in fork, and all the machinery in good working order, and everything going on regularly.

MAUDLIN.—**J. Tregay**, Nov. 18: There is no alteration worthy of remark in the rise in the back of the deep adit level since last report; the lode is still worth 2 tons of good copper ore per fathom.

MINERA UNION.—**W. T. Harris**, Nov. 18: The ground in the 75 yard level cross-cut west consists of limestone, and favourable for progress. The 60 yard level north yields stones of lead, and very promising.—**Brabner's Shaft:** The lode in the 90 yard level is small, and poor for lead, but being in new ground may be considered a good trial. The pitch in the roof of this level is worth 12 cwt., of lead per fathom. The lode in the winze in bottom of this level south is worth 1 1/2 ton of lead per fathom; the ground is very hard, and troublesome for breaking, and the water is also increasing.—**Boundary Shaft:** The pitch in the 40 yard level north is worth 15 cwt., of lead per fathom. The pitch in the back of the 60 yard level south is worth 10 cwt., lead per fathom.—**Flue Shaft:** Operations here are just as last reported.

MOUNT PLEASANT.—**William Wasley**, Nov. 18: Last Saturday being our setting-day, I set the level to drive west of Jenkins's shaft at 15s. per yard, and 9s. per ton for ore. The level to drive west of the boundary shaft at 10s. per yard, and 20s. per ton for ore, the men to tram, fill, and land all the stuff, pay for drawing, &c. We are not getting any ore at present, but from the appearance of the ground I expect to after a few yards further driving. I have set to two men to raise ore west of the boundary shaft, at 9s. per ton, for 2 tons; if they should get any over 2 tons to be at 4s. 10s. per ton, the men to pay 8s. per ton for dressing, and all other costs.

NANEGOS CONSOLS.—**M. Barber**, Nov. 18: The lode in the 26, west of Thomas's shaft, is still looking well, being a good mixture of lead and mastic, and copper ore, discharging quite as much water as before, and is of a very promising character.

Thomas's shaft is still looking well, being a good mixture of lead and mastic, and copper ore, discharging quite as much water as before, and is of a very promising character. Judging from the general appearance of the lode in the level above, I expect this end will shortly improve. I have set the winze to sink below the 16 to four men, at 32. 10s. per fathom, exclusive of paying for wheeling and drawing the stuff; now down 9 ft., with a leader of lead against the hanging-wall, yielding fully 1 ton of lead ore per fathom, and is of a very promising character. I shall be able to speak more fully of its yield in my next.

NEW CROW HILL.—**Capt. Trelease and Kent**, Nov. 18: The following was our setting on Saturday last:—At the engine-shaft we measured for last month's sinking 2 fms. 4 ft.; this shaft is now down a little over 6 fathoms below the 85 plat; this was re-set to the same part, at 181 per fathom, stoned the month: the ground is a little stiffer than it has been for some time past.—**Wheal Louisa**: In the 75 we measured for last month's driving, besides hoisting the winze, 2 fms. 4 ft. 6 in.; this bargain was re-set to the same part, at 110s. per fathom, stoned 2 fathoms: this end contains a strong kindly lode, full 4 feet wide, of mastic, and quartz, with occasional stones of lead.

NEW WHEAL CHARLOTTE.—**J. Tonkin**, Nov. 16: The tin stope in back of the adit are still looking as last reported, worth 77 to 107 per fathom. As soon as we can get the whim erected we shall raise some of the stuff to surface, and set on four men instead of two, as we now have.

NORTH DOWNS.—**F. Pryor**, J. Williams, Nov. 16: The lode in the 85, west of King's shaft, still presents a kindly appearance, and the water issuing strongly from the end. During the past month we have met with a small cross-cut, similar to the 60, before reaching the point of horse. In the 70, west of western winze, the lode retains its size and value—157 per fm. In the 70, east of sump-winze, no lode has been taken down beyond the splice, but will be done in a day or two, when its value will be fully reported on. We have communicated the rise in back of the 60 with the midway level, which has laid open a piece of tribute ground; the midway level has improved, now worth 111 per fathom. The stopes in bottom of the 60, west of sump-winze, is worth 87 per fathom. The stopes in bottom of the 60, east of sump-winze, is worth 157 per fathom. The 60, west of cross-cut, on the south lode, is without alteration.

NORTH RETALLACK.—**G. R. Odgers**, J. Harris, Nov. 18: The lode in the 20, north from the No. 1 boundary shaft, is 20 in. wide, composed of friable quartz and flookan with good lumps of lead—saving work.

NORTH TRESKERBY.—**R. Pryor**, T. Jenkin, Nov. 18: Tresidder's Shaft: We have again resumed the driving of the 130 fm. level, east of this shaft, having communicated the winze sunk from the 120; this end is opening up tribute ground. The lode in the 120 fm. level end east is large, and worth 4 tons of copper per fathom. The winze sinking below this level, about 20 fms. behind the 110 fm. level end, and 9 ft. in advance of the 120, is yielding 3 tons of ore per fathom.

The two stope in this level are each producing 3 tons of ore per fathom. The lode in Doctor's shaft is of a very promising character; it is now 1 1/2 ft. wide, and producing from 1 to 1 1/2 ton of ore per fathom. All other places without change since our last report.

OKEL TOR.—**J. Rodda**, Nov. 18: The south lode in the 80 fm. level east is improved, and is now worth 3 tons of ore per fathom; there is a large stream of water issuing from the breast of the end, and the ground is easier for driving, which are good indications of further improvements. In the 80, west of Trial's cross-cut, the lode is looking very promising, being 4 ft. wide, and worth 3 tons of ore per fathom. The 65 east is poor, but the lode is of the promising character, and the ground easy. The lode in the 50 east will yield 1 ton of ore per fathom. In this level west of the cross-cut from engine-shaft we have still a large rank lode, with occasional good stones of ore. The stope are as last reported.

OHIO.—**E. Bawden**, Jun., Nov. 4: The shaftmen have been engaged during the greater part of the past month in making the necessary alterations, repairs, &c., preparatory to sinking below the 35, which alterations, &c., are now complete, and the shaft being proceeded with, with a full set of men; it is at present in a very hard bar of ground and slow to excavate. The cross-cut driving east from the engine-shaft has been suspended, and the men put to drive east on the east and west vein in the south level, where we have discovered and passed through a small rib of lead ore and blonde, from 2 to 4 in. wide. We have now commenced driving on its course, and so far as seen it holds as good as when first intersected. The west end is still unproductive, though looking very kindly for the production of ore; both these ends should be carried on with interruption, as I think this the most promising part of the mine. The machinery and pitwork are in good working order.

OLD GUNNISLAKE.—**F. Phillips**, Nov. 17: On Saturday we set Parker's shaft to six men and three labourers, at 181 per fathom, stoned the month; and the shaft being proceeded with, with a full set of men; it is at present in a very hard bar of ground and slow to excavate.

PEDN-AN-DREYA UNITED.—**Wm. Tregay**, J. Thomas, Nov. 13: Sump: The lode in the 140 end west is worth 607 per fathom for 6 feet wide, and no north wall. The ground in the 120 north is very wet, and rather tighter than it has been, but we are making fair progress. The 120 fm. level winze is going down rapidly, and will hole to the 130 in a week or two at furthest. In the rise in the 100 east the ground is favourable for rising, and fair progress is being made; lode but slightly productive.—Cobbler's: In the 120 rise west, on Martin's lode, worth 4 ft. wide, producing 5 fms. 0 ft. 6 in. were driven, and it was set again at 27 per fathom, stoned 5 fathoms, or cut the lode; I think we may expect it shortly.

PEDN-AN-DREYA UNITED.—**Wm. Tregay**, J. Thomas, Nov. 13: On Saturday we set 6 fathoms to drive, at 31. 15s. per fathom, and yesterday we re-set it at 37. 5s. per fathom; we find the wall of the lode still hard. The ground is also better in the 20 fm. level end, south of the footway shaft, the lode is very wide, and more kindly than it has been for some time. It is nearly all goss with soft killas on the east side of it, which has to be timbered; this end will soon be in far enough for a winze. The water is all gone from the bottom of the new shaft, so it is plain enough that it is being drained by means of the 20 fm. level; it is hardly worth while to put men to try to sink it yet, as it is more expensive to be in the water than by having it dry.

VAN CONSOLS.—**T. Cordfield**, Nov. 18: In the 30 cross-cut we have driven into the lode from the north side of the level 5 fms. 3 ft., adding the width of the level we have cut through (5 1/2 fms.) of the lode, which is wider than in the last cross-cut; the lode in the end is now composed of killas and carbonate of lime, with stones of lead and blonde. I consider the widening of the lode here a great feature, as it is in or near these bands we expect deposits of ore. We are getting on well with the dividing of Gundry's shaft, and the masons have made very good progress with the wheel-pit this week.

VAN UNITED.—**S. M. Ridge**, Nov. 18: We have made little progress in sinking the engine-shaft since my last report, owing to the strong feed of water bursting from the footwall of the lode; consequently we shall not be able to sink the shaft by manual labour, as I anticipated, especially in the winter season; therefore, I would recommend the sinking to be suspended for the present, and our force to be put to drive the deep adit level extensively westward on the course of the lode, and by so doing it is my opinion that fine discoveries of both lead and copper ore would be made. The lode at the shaft sinking below Hollingsworth's level, is about 3 ft. wide, composed of lime and sugar-spar, killas, and blue flookan on the footwall of the lode, and strings of copper. The shaft is now down 3 fms. 4 ft. below the level, and I consider the greater part of the lode is to be found to the north side of the footwall, as the water is coming from it in all directions.

WEST CWM ERFIN.—**Nov. 18:** The lode in the adit level going east of the engine-shaft is 2 ft. wide, composed of spar, mastic, blonde, and a light clay-slate, with a little lead ore. The cross-cut north, in the adit level, is being pushed on by four men, but there is no change in the ground worthy of remark; strings of spar, with spots of ore, are still being met with, and water issuing from the end.

WEST CWM ERFIN.—**J. Pope**, Jun., Nov. 17: Hope Lode: In the 35, driving west of Paul's shaft, the lode is 1 ft. wide, producing stones of lead, and a little tin. The lode at Fall's shaft, sinking below the 15, is 2 ft. wide, saving work for tin. In the deep adit level, south-east of Pressure shaft, we have opened east about 3 1/2 ft. on the lode that I referred to last week, and have cut off granite, which has disordered the lode for the present, but I hope to be able to say more about it in a few days.

WEST GREAT WORK.—**S. J. Reed**, Nov. 18: The great north lode in the 40, west of flat-rod shaft, has improved, worth 162 per fathom. The rise in back of the 8 worth 207 per fathom. Other places without change.

WEST TOLGIUS.—**Nov. 17:** The ground in Taylor's engine-shaft, sinking below the 106, is moderately easy—a good looking killas, and the men are making good progress in sinking. The lode in the 105 east is 5 feet wide from the north to the south wall; it consists of spar and white iron, and copper ore, worth about 107 per fathom, for copper—a strong lode. In the 105 west the lode is 5 ft. wide, yielding 4 tons of ore per fathom; we have a small limb of the cross-course in the end at this time, consequently there is more spar mixed up in the lode. We met yesterday with the north wall of the lode, or it may be a horse of killas between the north and south parts of the lode, similar to what we had in the level above. In the 95 we drove on for 6 fathoms on the south part of the lode, not knowing that we had a horse of killas standing until by blasting a hole, which threw down a piece of the killas horse, and discovered the north part of the lode. In the 105 we shall have to drive on for 6 or 9 fathoms before we shall be able to say if there is more lode to the north or not. In the 95 east we are driving a few feet north, to see if we have a piece of the lode standing to the north: a week more in driving will, we think, prove it. The lode in the 95 west is 20 in. wide—unproductive. The branch that we met with to the south of the main lode has come round again to the main part. We have four stope over the back of the 95, working by 24 men, at an average price of 32. 3s. 6d. per fathom. The yield of the three stope west of cross-course is as follows:—The western stope, 6 tons of ore, worth 307 per fm.; the middle stope, 8 tons, worth 401 per fm.; and the stope adjoining the cross-course, 6 tons, worth 307 per fm. The stope east of the cross-course is looking better than when last reported, now producing 5 tons of ore, worth 227 per fathom. We have a stone of ore in the lode in the rise over the back of the 85 east, looking promising. We hope by the end of the month to hole to the level above. We have two stope over the back of the 85, working by 12 men, at 32. 2s. 6d. per fathom. In the 65 west the lode is 3 1/2 ft. wide, consisting of spar, mastic, blonde, and spots of ore—a strong lode. The lode in Richards's shaft has not been taken down since last reported. On the whole, the mine is looking very well. Our sampling yesterday was 410 tons (computed).

WEST PRINCE OF WALES.—**W. C. Cook**, Nov. 18: The ground in the north engine-shaft continues just the same as reported last week.

WEST WHEAL FRANCES.—**Josiah Thomas, Charles Crase, Henry Rabing**, Nov. 17: The 132, west of Bailey's shaft, is worth 107 per fathom. The 120, west of Bailey's shaft, is unproductive. The 108 west is producing a little tin, but is not yet of much value. Our progress here is slow, the ground being hard, and end wet; but we have reason to think, but that a productive lode will be met with in the next few fathoms driving. The winze under the 95 is worth 20 ft. long 40 ft. per fathom. The new shaft under the 85, and the rise towards it over the 95, are both worth for 6 ft. long 20 ft. per fathom. The 85 west is worth 307 per fathom. The 77 west is worth 87 per fathom. The rise over the 77, towards the new shaft is worth for 6 ft. long 87 per fathom. The 69 west produces a little tin.

WEST WHEAL TREMAYNE.—**S. Roberts**: We have cut two other branches

iron ore, ground or reduced to a powder, with sulphate of lime, sulphate of soda, sulphate of alumina, or with any alkaline sulphate pulverised, and both articles having been roasted or otherwise assimilated to about equal degrees of temperature. A fusion or smelting of the materials is then to be effected by the usual methods in an ordinary furnace.

The IRON AND STEEL INSTITUTE have made arrangements for holding its next meeting at the South Kensington Museum, on Thursday, Dec. 2. The papers read at the meeting at Middlesbrough by Mr. Isaac Lowthian Bell, on "The Development of Heat in Blast-Furnaces," and by Mr. Palmer Budd, on "A New Process of Refining Iron," will be discussed, and several papers postponed at the September meeting will be read. Mr. Menelaus, whom no better authority could be found, will likewise bring forward a paper on "Improvements in Rail-Rolling Machinery," so that, upon the whole, proceedings of a very interesting and instructive nature may be anticipated.

GEOLICAL SOCIETY OF LONDON.—Nov. 10: (Prof. T. H. Huxley, LL.D., F.R.S., President, in the chair.) E. Hartley, of the Geological Survey of Canada, Montreal, was elected Fellow of the Society. The following communications were read:—

1.—"Australian Mesozoic Geology and Palaeontology," by C. Moore, F.G.S.
2.—"On a Plant and Insect Bed on the Rocky River, New South Wales," by Charles Moore, F.G.S.
3.—"On Hypsilophodon, a new genus of Dinosauria," by Prof. Huxley.
4.—"Further Evidence of the Affinity between the Dinosaurian Reptiles and Birds," by Prof. Huxley.

On Wednesday the following papers will be read:—1. "On the Dinosauria of the Trias, with observations on the Classification of the Dinosauria," by Prof. Huxley, F.R.S., President.—2. "The Physical Geography of Western Europe during the Mesozoic and Cainozoic Periods, elucidated by their Coral-faunas," by Dr. P. Martin Ducaen, F.R.S., Sec. G.S.

RECENT AMERICAN INVENTIONS.

SIR.—Well knowing the readiness of Englishmen, and especially of English miners, to adopt any really useful invention, no matter whence it comes, the readers of the *Mining Journal* will probably like to learn something as to what is doing in this country.

A new Dry Concentrator, the invention of Mr. Krom, is at present being tried in Colorado. The invention is, in fact, a pneumatic jiggling hutch. Instead of water it is air that is forced up through the jiggling sieve, in successive impulses, given by means of a bellows, and, theoretically, since heavy objects fall quicker in air than in water, the blows can be more rapidly repeated, and the amount of work done be proportionately increased.

A Mining Pan, which is likely to prove at once economic and efficient, is now being constructed in San Francisco, by Mr. A. Moore, of San Rafael. The experimental trial has been most encouraging. Cubes of rock of the size of 1 or $1\frac{1}{2}$ in., fed into a hopper which surrounds the central portion of the pan, are readily reduced to a degree of fineness suitable for ordinary pan work. The discharge of this grinder or crusher is so made that the sand will pass directly beneath the millers, as in ordinary pans, where it is subjected to the ordinary amount of trituration, and thoroughly amalgamated. When this process is completed the pan may be charged with a suitable quantity of water to act as a settler; and when ready for the "clean up" the millers are readily run up by a screw cut upon the central shaft, so as to be entirely out of the way of the charge and the operator. By opening plugs in the ordinary way the water, after being settled, is drawn off, and the sediment and amalgam removed, as from ordinary settlers. The dies and millers are of peculiar construction, so as to secure a full and effective trituration and circulation of the pulp. In addition to the millers, and immediately over the periphery, there is a circular groove, in which is placed a series of balls, of about 30 lbs. weight, and extending entirely around the circumference of the pan. By the action of the pan these balls are set in motion, and, it is claimed, add greatly to the triturating powers of the pan. It is designed to operate the pan upon a framework of wood, which, it is claimed, is so secured and braced as to make it full as strong, and as little liable to get out of order, as though it were constructed of iron; while it can be built at much less cost, and more cheaply transported. In a timber country the frame can be got out and put together upon the ground, thereby securing an important saving in both cost and transportation. This pan is the result of much experience and experiment in the separate use of the grinder and the pan; and the inventor, who is a thoroughly practical man, is quite sure he has produced a combination of the two, with a settler, which will greatly reduce the cost of machinery in a quartz mill; and at the same time provide the prospector with a cheap and effective mill, which he can readily move from point to point, as he may desire for giving thorough practical tests to veins without the great expense attendant upon the erection of experimental mills.

The model of Collins's Oscillating Quartz-Crusher exhibited at the Industrial Fair, is creating a good deal of attention among miners, and an admirable description of it has been published in the *Mining and Scientific Press*. The machine is very simple in construction, and the crushing is produced by the oscillation of an iron wheel, under pressure of several hundred times its own weight, on an iron bed-plate, walled up on either side, so as to take the form of a trough, open at both ends. The quartz is fed, first upon one end of this trough, and then upon the other, while the wheel is made to alternately pass over the same. A suitable device is affixed, to remove all the quartz from either end, immediately after each passage of the wheel, discharging it into a rotary screen, which deposits that reduced sufficiently fine into one apartment, whilst the coarser finds its way, automatically, into another, from whence it may be again elevated, automatically or otherwise, to the feed platform. By this arrangement no power is uselessly expended on work that is fully completed; an entire new charge of quartz being presented for every movement of the wheel. The power required to drive the wheel is reduced to its minimum by an ingenious use of anti-friction rollers. The crushed mass can be reduced to any degree of fineness by the employment of finer or coarser screens. If the practical observer will imagine the above-described operation, which is even more simple than ordinary stamping, he will have precisely what is shown in this model, divested of its automatic feed attachment. The crushing of a piece of quartz by causing a heavy wheel to pass over it on an even iron floor is, probably, the most economical use of power in that direction which can be devised. The case of the failure of this principle, as applied to the ordinary Chilean mill, is owing to the practical difficulties in the way of effecting a ready discharge. The devise of Mr. Collins appears to have provided a full and efficient remedy for this defect.

The loss of the valuable metal in the process of wet-crushing is a cause of almost constant complaint, but the machine devised by Mr. Parsons, of Oakland, appears to have overcome the difficulty altogether. His method of wet-crushing without loss is exceedingly simple, and little or no concentration is necessary down to the process of amalgamation in the pan. He merely uses the same water over and over again, which is pumped back to the stamp mill. The advantages of amalgamation in battery for separation of coarse gold are thus first reaped: then the pulp flows into tanks (intermediate blankets, or other concentrating contrivances, not necessarily interfered with) of a number of compartments, in which the ore separates and sizes itself into as many qualities as may be desired. When one set of compartments gets filled with amalgamation matter the other is used, and the contents of the first are worked up in the pans. As it has been found that float gold will disengage the particles of air or water gas which make it buoyant, when heat is applied to 100 Cen., Mr. Parsons next conducts a steam-pipe into the tank, to heat up the material before amalgamation; effecting thereby, besides, the well-known chemical acceleration of the application of heat in the various succeeding processes.

Virginia City, Nevada.

CORNUBIENSIS.

OLD TREBURGETT SILVER AND LEAD MINING COMPANY.

The Secretary of the Old Treburgett Silver and Lead Mining Company (Limited) presents his compliments to the Editor of the *Mining Journal*, and begs to be allowed space for the enclosed letter, which is of great importance to the company.

1, Circus-place, Finsbury, London, Nov. 18.

SIR.—In my letter to you of the 1st inst. (inserted in the Journal of the 6th) I made some remarks relative to the Assay of Silver Ores from this old Cornish mine. I desire by this letter to express through you to the directors of this company—the Old Treburgett Silver and Lead Mining Company (Limited)—my regret that those remarks should have been unfavourably construed.

My object when writing on Assays of Silver Ores was to direct attention to the fact that the public, who are not initiated in these matters, might easily be misled by statements of assays of "rich specimens," and observing the announcement that such rich ore had been found in this mine, I too hastily made the remarks in question before I had referred to the details in the reports and in the company's prospects. Having now done so, I perceive that the quality of the ore has, in the manner which I proposed in my letter, been fully ascertained by the reduction of 1 ton of ordinary ore, and that the company's inclusion to the "specimen" was but to prove the presence of true silver ore in the mine. I desire also to add that I had no intention to impugn in any way the assay or reports of so well known an authority on mining and metallurgical matters as Mr. David Forbes, F.R.S.

* * * With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Prof. Smyth's Lectures at the Royal School of Mines—J. Grafton Jones's Machine for the Prevention of Colliery Explosions (illustrated)—J. and J. Hyde's "Perfect Safety-Lamp"—Salt Bed at Middlesbrough (W. H. Peacock's Paper, read before the Cleveland Literary and Philosophical Society)—Original Correspondence: Strolls in the Black Country; Iron Works and Coal Mining in Monmouthshire (M. B. Gardner); Experiments with Safety-Lamps; Chemistry of the Mine; North Treskerby Mine (R. Pryor); Copper Mining in Cornwall; On the Assays of Silver Ores, No. III. (T. L. Phipson); Rich Silver Ores of Old Treburgett (R. Talling); Mineral Wealth of Spain, No. IV. (B. H. Howarth); New Quebrada Company; Rosewall Hill and Ransom Mines, &c.

* * * With last week's Journal a SUPPLEMENTAL SHEET was given, containing—Prof. Smyth's Lectures at the Royal School of Mines—Original Correspondence: Mr. Bidder's Coal-Breaking Machine (W. Y. Craig); Safety-Lamp Experiments; Miners' Friend, a New Safety-Lamp (A. H. Gilmore); Proposed Great Western Maritime Ship Canal (G. Anderson); Notes on Coal Mining in Monmouthshire (M. B. Gardner); Improvements in Iron and Steel (A. Meredith); Welding of Rail Iron; Assay of Silver Ores, No. II. (T. L. Phipson, T. A. Massey, J. D. Keighley, &c.); Mineral Wealth of Spain, No. III. (B. H. Howarth); Duties of Mineral Land Owners (P. Eddy)—Foreign Mines Reports, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, NOV. 19, 1869.

COPPER.	£	s.	d.	£	s.	d.
Best selected, p. ton	74	0	0	75	0	0
Tough cake and tins	73	0	0	—	—	—
Sheathing & sheets	78	0	0	—	—	—
Bolts	78	0	0	—	—	—
Bottoms	81	0	0	—	—	—
Old (Exchange)	65	0	0	—	—	—
Burra Burra	74	0	0	75	0	0
Wire, per lb.	0	1	0	0	0	0
Tubes	0	11	0	1	0	0
BRASS.	Per lb.					
Sheets	per lb.	8	1/2	—	—	—
Wire	—	8d.	—	—	—	—
Tubes	—	10 1/2d.	—	—	—	—
Yellow Metal Sheath, p. lb.	6 1/2d.	—	—	—	—	—
Sheets	—	6 1/2d.	—	—	—	—
SPELTER.	Per ton.					
Foreign on the spot	19	15	0	—	—	—
to arrive	19	15	0	—	—	—
ZINC.	—					
In sheets	£24	0	0	—	—	—
TIN.	—					
English blocks	123	0	0	—	—	—
Do., bars (in brls.)	124	0	0	—	—	—
Do., refined	130	0	0	—	—	—
Banca	(nom.) £117 0	0	118	0	0	0
Straits	(nom.) 118	0	0	—	—	—
TIN-PLATES.*	Per box.					
IC Charcoal, 1st qua.	1	6	0	1	8	0
IX Ditto, 1st quality	1	12	0	1	14	0
IX Ditto, 2d quality	1	4	0	1	6	0
IX Ditto, 2d quality	1	10	0	1	12	0
IX Coke	1	2	6	1	3	6
IX Ditto	1	8	6	1	9	6
Canadaplates, p. ton	13	10	0	—	—	—
Ditto, at works	12	10	0	—	—	—
At the works, 1s. to 1s. 6d. per box less.						

REMARKS.—The Metal Market has remained in a very inanimate condition during the past week, business to a limited extent only has been done, and the prospect of any immediate improvement is by no means encouraging. Orders from India still continue very few, and the advices from thence are not such as to lead to any expectation that we shall see any great accession to the number that come to hand for some time. Indeed, at present there appears to be a general stagnation in the metal trade, which is very discouraging; and how long the present state of things is likely to continue it seems impossible to say; we can only hope that a change for the better may be long occur in the Indian markets, and that we must again see a return of former active operations. Prices have not materially altered during the week, although in the absence of transactions there is more disposition on the part of sellers to meet buyers in order to secure business. In one metal, however, prices have decided declined, and, in all probability, will now come down to something more like the actual value of the article, as it has for a long time been raised to a fictitious value, which has often been kept up by speculation. Now, however, we may expect to find it coming down to such a price as it exhibited in former years, and when it does this, in all probability, we shall have a better and more legitimate business done in it. No further advance has yet been made in the Bank rate of discount, which consequently still remains at 3 per cent, and it is to be hoped that no necessity will arise at present for raising it beyond this point, as in the now sensitive condition of commercial affairs such a step would have a prejudicial effect upon the market. General dissatisfaction appears to be rising in various quarters as to the present unfavourable position of trade throughout the country, and various are the causes assigned for it. It is to be hoped that full discussion on the matter may be attended with benefit, and that some of the causes of it may be, at all events, discovered, so that possible remedial measures may be applied.

COPPER.—The market for this metal has remained quiet throughout the week, and the amount of business transacted has been limited. Chili bar has been quoted at 67 1/2, 68, 69, cash during the greater part of the week, but latterly it has rather given way, and is now quoted at 67 1/2, 67 1/2, 68, cash; ore at 13s. 3d. per unit.

IRON.—In Staffordshire in the finished iron department only a few of the leading makers are able to maintain the officially declared advance of 20s. per ton, the actual advance obtainable by second-class houses ranging from 5s. to 15s. per ton. In Welsh, the large advance in Staffordshire has influenced the prices in this district but to a very slight extent—in fact, the Bar-Iron Trade has for a long time been quiet, and still continues so. The rail mills are in regular employ, and the contracts on the books of makers will keep the works going for two or three months to come; by that time, probably, some improvement may have taken place in the demand for other kinds of iron. In Swedish iron the demand is by no means active, the stock here is at present very small, and supplies come forward only very slowly; prices are, however, well maintained. In Scotch pig-iron the tone of the market has been rather quiet than it was last week, and a gradual decline has taken place, which at one time reached 54s. 1d. cash, but afterwards an improved feeling took place, and prices eventually recovered to 54s. 1d. cash and 54s. 6d. one month, at which they stood when the last intelligence was received from Glasgow. Lead is still in fair request, and prices remain firm at quotations.

TIN.—The market for foreign has been somewhat uncertain during the week, and prices have varied. Early in the week there were buyers of Straits at 118s., holders asking 120s. Small sales were afterwards effected at 119s. 10s., more recently, however, transactions occurred at 118s. cash, which may be now considered the quotation. Banca has been sold at 117s. 10s., and is now quoted at 117s. 10s. In English, although no official reduction has taken place, yet common is obtainable at 4s., and refined at 6s. per ton under smelters' quotations.

SPELTER remains without improvement, the price for parcels on the spot being still 19s. 15s.

TIN-PLATES continue quiet, orders being limited.

STEEL without change.

QUICKSILVER.—An improved demand exists.

THE IRON TRADE.—(Griffith's Weekly Report).—The market for ordinary kinds of second-class Staffordshire iron continues in an abnormal state, and prices far below list rates are being taken. On the other hand, bars of well-known North and South Staffordshire makes fetch full list rates, and some good orders have been given out this week to the North Staffordshire houses for bars. The demand for boiler-plates has improved, and several large

contracts have been booked by North Staffordshire houses at their advanced prices. The demand for rails continues unabated, with a strong market. There is a brisk demand likewise for T and angle iron, and some fair orders have been taken for these kinds by several works on the Tees this week. The demand for sheet-iron is not so brisk. Hoops continue in request, and we have had the regular business this week in small rounds and squares, but prices for these kinds are irregular, and much below list rates. Tin-plates continue flat and inanimate; the makers complain that prices are unremunerative.—75, Old Broad-street, London.

THE COPPER TRADE.—Messrs. J. Pitcairn-Campbell and Co. (Liverpool)—Advices from Chill up to Oct. 2 have strengthened the views of holders of bars, and a fair business has been done at full prices, to 10s. per ton advance. English copper is unchanged, and, smelters being disinclined to operate, ores and regulus are dull at our quotations. Quotations are 67s. 10s. to 68s. for bars, 72s. for Urmen Ingots, 13s. 3d. for good Chill ores and regulus, and 14s. 7d. to 14s. 9s. for Corocoro Barilla. Business transacted during the fortnight comprises—On the spot here, 672 tons bars, at 67s. 5s. to 68s.; and 329 tons regulus at 13s. 3d. to 13s. 6d.; to arrive, 210 tons bars, at 68s. 10s. to 69s.; and by ticket, 470 tons Canadian ore, averaged 13s. 2d. per unit. Arrivals here during the fortnight from West Coast, S.A.:—Dunalkier, from Valparaiso, with 20 tons ore, 45 tons regulus, and 385 tons bars; Pasithea, from Caldera, 272 tons regulus and 50 tons bars; Lord Marmon, from Lota, 750 tons bars; Blanche and Louisa, from Coquimbo, 900 tons regulus. At Swansea—Scout, from Valparaiso, 216 tons regulus and 308 tons bars; Magnet, from Talca, 672 tons ore and 453 tons regulus; Maida, from Carrizal, 691 tons regulus; Corinna, from Caldera, 702 tons regulus; Charlotte, from Totoralito, 605 tons regulus; Joseph Thompson, from Caldera, 130 tons regulus and 70 tons bars; Herradura, from Caldera, 645 tons regulus and 90 tons bars; Tocopilla, from Tocopilla, 240 tons ore and 420 tons regulus; Prince Alfred, from Guayaquil, 800 tons bars. The following cargoes of Australian ores have arrived here: Prince Arthur, 678 tons; Charlotte, 755 tons; Beatrice, 755 tons at Swansea—Atlantic, 600 tons, equal to 2788 tons. stocks of copper (Chilian and Bolivian) in first and second hands likely to be available are—

Crebore, 10s. to 12s. 6d.; the sale of ore realised about 400*l.*, with carriage. Wheal Kitty (St. Agnes), 5 to 5*l*; Wheal Margaret, 10 to 12*l*; Wheal Seton, 25 to 27. Redmoor, 15*s*. to 17*s*. 6*d*.; the lode in the 25*ft* west is still worth 15*l*. per fathom. Don Pedro del Rey, 4 to 4*l*; the accounts for September show a profit on the month of 3036*l*. 7*s*. 2*d*. The produce for October weighed to the 16th was 5539 oitavas. The report of Mr. Thos. Treloar, of Oct. 2, states the bottom of the mine was looking well, and the decline in the produce is due to trouble arising from water and the inexperience of miners, and seeing this, and also that there will be more trouble in driving the adits than expected, and looking at the time that must elapse before the powerful pumping-engine will be erected, the Don Pedro Mine, unless something new is discovered, will not be itself again for 12 or 15 months. Against this unfavourable report attention is drawn to Mr. Symons's of the 16th, wherein he notices an improvement in a "branch" in the footwall of the new lode. St. Just Amalgamated we hear has entered the Dividend List by paying 2*s*. 6*d*. per share on 9000 shares, the result of the past 12 months' working.

The Market for Mining Shares on the Stock Exchange has again been comparatively quiet, and a small business only has been transacted. In exceptional cases, however, there has been more doing. Prices generally remain steady. The advices from the Chontales Mines are not of a satisfactory character. On account of the continuance of the rebellion there is no remittance of gold. The advices from Don Pedro not being considered so satisfactory, shares have declined. The following are the closing quotations:—Chontales, 13*s*. to 15*s*.; Don Pedro, 3*s* to 3*l* prem.; Frontino and Bolivian, 21*s*. to 23*s*.; Port Phillip, 1*l* 3*s* to 1*l* 5*s* 16*d*; Rossa Grande, par to 1*l* prem.; Anglo-Argentine, 10*s*. to 15*s*.; Anglo-Brazilian, 1*l* to 1*l* 1*d*; Australian United, 1*l* to 1*l* prem.; Pestauna, 1*l* to 1*l* 1*d*; St. John del Rey, 16*s* to 17*s*; Aquaril, 1*l* to 1*l* prem.; United Mexican, 4*s* to 4*l*; Yudanamutana, 14*s* to 14*s*. In British descriptions Van shares are firm, at former quotations. The monthly sampling amounts to 250 tons of lead ore and 100 tons of blends; 200 tons of the former were sold at 13*s*. 8*s*. 6*d*. per ton, and 50 tons at 13*s*. 10*s*. 6*d*.; the 100 tons of blends realised 3*s*. 10*s*. per ton. The mine in every respect continues to improve, and the returns may be expected to increase to a considerable extent; the shares close 38 to 40. West Chiverton, 5*s* to 5*l* 6*d*; Chiverton, 3*s* to 3*l*; Chiverton Moor, 3*s* to 3*l*; East Caradon, 6*s* to 6*l*; West Caradon, 1*l* to 1*l*; East Lovell, 18*s* to 19*s*; Great Vor, 13*s* to 14*s*; Marke Valley, 6*s* to 7*s*; Great Laxey, 19 to 19*s*; Prince of Wales, 23*s*. to 25*s*; Hindston Down, 27*s*. 6*d*. to 32*s*. 6*d*., and in demand.

At the Swansea Ticketing, on Tuesday, 1828 tons of ore were sold, realising 13,384*l*. 19*s*. 6*d*. The particulars of the sale were—Average standard for 9 per cent. ore, 87*s*. 19*s*.; average produce, 11*s*.; average price per ton, 7*s*. 6*d*.; quantity of fine copper, 208 tons. The following are the particulars of the sales during the past month:—

Date. Tons. Standard. Produce. Price per ton. Per unit. Ore copper. Oct. 26. ... 861 13 0 ... 15*s*. 4*d* ... £10 3 4 ... 12*s*. 1*d* ... £64 6 0 Nov. 10. 1828 ... 87 19 0 ... 11*s*. ... 7 6 5 ... 12 10 ... 64 13 0

Compared with the last sale, the advance has been in the standard 1*l*. 6*s*., and in the price per ton of ore about 3*s*. There will be no sale on Dec. 7.

At the Truro Ticketing, on Thursday, 3757 tons of ore were sold, realising 14,722*l*. 12*s*. The particulars of the sale were—Average standard, 10*s*. 15*s*.; average produce, 6*s*.; average price per ton, 3*s*. 18*s*. 6*d*.; quantity of fine copper, 239 tons 4 cwt. The following are the particulars of the sales during the past month:—

Date. Tons. Standard. Produce. Price per ton. Per unit. Ore copper. Oct. 21. ... 2719 1 0 ... 6*s*. ... £3 16 0 ... 11*s*. 1*d* ... £59 14 0 Nov. 4. ... 1994 ... 92 11 0 ... 8*s*. ... 5 0 6 ... 11 1*l* ... 59 16 0 Nov. 4. ... 1356 ... 97 13 0 ... 7*s*. ... 4 6 0 ... 11 11 ... 59 10 6 Nov. 18. ... 3757 ... 104 15 0 ... 6*s*. ... 3 18 6 ... 12 4 ... 61 10 0

Compared with the last sale, the advance has been in the standard 1*l*. 15*s*., and in the price per ton of ore about 2*s*. 3*d*. Compared with the corresponding sale of last month, the advance has been in the standard 2*l*., and in the price per ton of ore about 2*s*. 6*d*.

At the Minera Mining Company meeting, on Nov. 5, the directors declared a dividend of 4*l*. 10*s*. per share (free of income tax) on the 1800 shares of this company, payable on Nov. 15, amounting to 8100*l*. for Michaelmas quarter ending on Sept. 30. This makes a total paid in dividends of 473,694*l*. 5*s*. since Aug. 25, 1854, equal to 2631*l*. 3*s*. 3*d*. on each 25*l*. share in little more than 15 years.

At the Wheal Kitty (St. Agnes) meeting, on Monday (Mr. Reece in the chair), the accounts showed a credit balance of 1919*l*. 15*s*. 9*d*. The profit upon the three months' working was 1217*l*. A dividend of 1073*l*. 15*s*. (5*s*. per share) was declared, leaving 887*l*. 9*s*. 9*d*. to be carried forward to the credit of next account. Details in another column.

At West Caradon Mine meeting, on Thursday (Mr. Nicholson in the chair), the accounts showed a debit balance of 1917*l*. 13*s*. It was agreed to subdivide the shares into 12,288, upon which a call of 3*s*. per share was made, and to discontinue the deep workings. Details in another column.

At the North Downs Mine meeting, yesterday (Mr. Milford in the chair), the accounts made up to the end of October showed a debit balance of 562*l*. 1*s*. 1*d*., equivalent of the value of the ore raised during October. No call was made. The report concluded by stating that the mine was looking very well, and nothing better could be done than to continue the present operations. Upon the proposition of Mr. Mackay, seconded by Mr. M'Callan, the committee of management were re-elected.

At the Governor and Company of Copper Miners in England extraordinary general court, on Wednesday (Sir R. Macdonald Stephenson, Deputy Governor, in the chair), the report of the Consultation Committee, and the special report of the Court of Assistants, embodying the views of the committee and the court's recommendations theron, were adopted.

The Bank of England Return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT an increase in the "notes issued" of 180,120*l*. which is represented by a corresponding decrease in the "coin and bullion" on the other side of the account. In the BANKING DEPARTMENT there is shown an increase in the "public deposits" of 485,080*l*. in the "other deposits" of 61,672*l*. and in the "rest" of 4872*l*. together 551,639*l*.; and a decrease in the "seven day and other bills" of 16,593*l*. 535,046*l*. and adding thereto 392*l*. the decrease in the "other securities" on the asset side of the account, there is shown a total increase in the "reserve" of 538,969*l*.

FORFEITURE OF MINE SHARES—IMPORTANT OPINION OF THE VICE-WARDEN.—In the Court of the Stannaries, at Truro, last week, the Vice-Warden drew the attention of legal gentlemen to a notice which he observed in the newspapers, to the effect that the shareholders in an old mine proposed to forfeit certain shares, under clauses 16 and 17 of the New Stannaries Act. As the remarks of His Honour are of the greatest importance to all who are in any way connected with mining enterprise, we give them prominence:—

"It does not appear that it is proposed to proceed under any rules of the company, written or unwritten; and without this, the mine being an old mine, it is very doubtful whether the shareholders have any right to declare forfeitures, or deal with the shares, &c. I mention the matter here, because these things may come before me, or before the practitioners of the Court, in the way of consultation or otherwise. Existing mines, as a general rule (if not registered), are formed on the Cost-book System, and that system will not, without some special provision, justify the forfeiture of shares, with payment of interest, expenses, &c., as a general rule of law, no Act of Parliament shall be construed to vary pre-existing contracts; in other words, no Act of Parliament will operate retrospectively, unless there be clauses or provisions, specially showing that the Act is to be retrospective, or necessarily implying such operation. The new Stannaries Act has no such clause, the section 7 seems to provide that nothing done under the Act shall be at variance with the provisions of any existing company. In companies formed since the Act the case may be different, and the forfeiture clauses will apply. The point is important, and if legal opinions differ, it is desirable that it should be settled by a superior Court, meantime the companies will, in such cases, act on their own responsibility."

From the above remarks it will be seen that it is the opinion of the Vice-Warden, who possesses a profound knowledge of the law, that the New Stannaries Act does not apply to mines existing before the passing of the Act, so that, if his opinion be borne out, which it generally is on appeal, the new Act will be rendered almost entirely inoperative in this matter.

ST. JUST AMALGAMATED.—It is gratifying to announce the fact of this company having entered the list of dividend mines. This result is owing to practical judgment and unremitting attention. Mr. H. L. Phillips, the managing director, is to be congratulated upon the successful realisation of the expectations he had formed of the western part of the mines, which it will be remembered he purchased some time since and made over to the shareholders, without any consideration of immediate personal advantage—thus compensating for an unexampled depreciation in the price of tin, which had very materially reduced the value of the eastern portion of the mines; and, as will be now seen, securing a remunerative mine to the shareholders. Capt. Richard Pryor, the zealous and confidential representative of Mr. Phillips in Cornwall, and the manager of the mines, is also entitled to praise for the active exertions he has made on behalf of the company. There seems reason to believe that the success of the St.

Just Amalgamated is only the forerunner of other successful mines with which Mr. Phillips and Captain Pryor are associated.

Mr. W. L. Webb, of No. 8, Finch-lane, has just published a pamphlet, containing a resume of the various Public Telegraph Companies, with information as to the objects, capital dividends, directors, &c., in each of the companies; and a chart, showing the several lines in operation, in course of completion, or projected. This has been carefully compiled by Mr. Courtenay Clarke, and gives just the kind of information that is valuable to all persons interested in telegraph companies.

COAL MARKET.—The fresh arrivals this week only amount to 72 ships, but the change of wind having supplied the different ports freely with shipping, business, in anticipation of larger supplies, has been dull and stagnant, and we quote a reduction of prices in the week of 2*s*. per ton on household coals. Hartley's have maintained late prices. Hetton Wallsend, 20*s*.; Haswell Wallsend, 19*s*. 6*d*.; Tees Wallsend, 19*s*.; Hetton Lyon's Wallsend, 17*s*. 9*d*.; Tunstall Wallsend, 17*s*. 9*d*.; Kelloe Wallsend, 18*s*. 6*d*. Unsold, 2 cargoes; 30 ships at sea.

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THE ADVERTISER holds a VALUABLE TRACT OF MINERAL LAND, including MINES containing SEVENTY PER CENT. COPPER, and TEN PER CENT. GOLD. He wishes to MEET with RESPECTABLE PARTIES to FORM a COMPANY. The property is situated near a sea port, and a railway is just being completed in the district.

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WANTED IMMEDIATELY.—A WATER WHEEL, in perfect condition, 30 ft. to 35 ft. diameter, and 3 ft. to 5 ft. breast, for cash. State full particulars where it can be inspected, and price.

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TO ENGINEERS AND OTHERS.—A PARCEL of about FIFTY TONS, shortly expected in Liverpool, TO BE SOLD.

Apply for further particulars to Mr. LEO BERGER, Metal Agent, 29, Bishops-gate-street, Within, London.

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Oxide of manganese, 64 per cent.

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ANGLO-MEXICAN MINT COMPANY.—Notice is hereby given

that a DIVIDEND will be PAYABLE at this office on and after THURSDAY, the 24 December next. Claims to be made (printed forms of which may be obtained at the office) two clear days previous to payment. Attendance, Eleven to Three o'clock.

ALFRED GODFREY, Sec.

4, Finsbury-place South, 20th November, 1869.

NETT WRENTS IN LEAD MINES.—The DIVIDENDS paid by LEAD MINES for the year have DOUBLED in AMOUNT in the last ten years, and are likely to continue to increase. Some of the young lead mines will probably become profitable, and rise greatly in value in a short time. Full particulars, with a MAP of the Cardiganshire and Montgomeryshire districts (including Van, Dylife, Plynlimon, East Darren, South Darren, Llinsbury, Cwmystwyth, Cefn Brynwyd, and other mines), can be obtained on application to J. H. MURCHISON, Esq., No. 8, Austinfriars, London, E.C.

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NOTICES TO CORRESPONDENTS.

Much inconvenience having arisen in consequence of several of the numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

LEAD-DRESSING MACHINERY.—Would any of the numerous practical men who are reading your valuable Journal be obliging enough to send me, either privately or by letter to you, full particulars, with probable cost, of the machinery necessary to enable me to dress monthly a quantity of rich ore, equal to about 20 tons of lead, fit for the smelters?—LEAD MINER.

PATTINSON'S DESILVERING PROCESS.—I shall feel much obliged if some correspondent would give me any information respecting the necessary apparatus (and of what it consists) required for desilvering or extracting silver from pig-lead by Pattinson's process, and making the silver and lead each suitable for market purposes; also the cost of extracting the silver per ton of lead.—INQUIRER.

CHURCH'S HYDRAULIC RAM.—Can any of your readers give me Mr. Chubb's address? I mean the gentleman who is the patentee of the hydraulic ram for coal getting.—ENQUIRER.

GOLD MINING IN ITALY.—I should feel obliged if any correspondent would favour me with some information about the present position of the following gold mines in Italy, of which I can find no mention in the *Mining Journal*.—1. The Liguria, the Chairman of which was Mr. Gilman, Great Winchester-street. In which also were, I believe, Messrs. Blogg and Martin, Jewellers, and Lord Cavendish.—2. The Val Corsette, belonging to the same parties, but being another company. How do they stand? Are they working; or are they in liquidation? I wish for these particulars because similar mines close by are proposed to be formed into companies.—B.

LAKE SUPERIOR.—The letter from a "Cornish Miner" (Eagle River, Oct. 33) shall be inserted in next week's Journal.

CAPE COPPER COMPANY.—Early in the year this company declared a dividend of 2s. per share. At the meeting a shareholder asked when the dividend would be paid, and was told that, as the ore was still at the mine, we must wait until it was brought to England and sold. When that would be done no one could say. We were also told that the expenses of raising the ore out of the mine was nothing compared with bringing it to England, and that we were, in fact, a carrying company. It struck me at the time that it was an odd proceeding to declare a dividend before the principal part of the work was done, and that it would have been almost as reasonable to declare a dividend equal to the amount of ore discovered in the mine, and to say that we should have it when we could get it. Since the meeting no dividend has been paid, and nothing has been heard about it.—A SHAREHOLDER.

MINING IN SPAIN.—Letters for Mr. B. H. Howarth should be addressed to Pen-dleton, near Manchester.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment, speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, NOVEMBER 20, 1869.

COLLIERY EXPLOSIONS.

First an explosion at the Newbury Colliery, of the Westbury Iron Company, in Somersetshire, and the loss of nine lives; then an explosion in the Hendreforgan Colliery, in the Swansea Valley, belonging to Mr. BAINES, and the loss of six lives; and now an explosion at No. 5 pit of the Moss Hall Coal Company, near the Platt Bridge Station, Hindley, near to Wigan, and twenty-six lives lost. These calamities following in rapid succession, all in notably fiery localities, and two in fields, unhappily, notorious because of earlier disasters, proclaim only too distinctly that this fearful fire-damp is still as ever the terrible and unconquered foe of the coal miner. That the enemy is unconquerable time only will demonstrate. Much has been done in arriving at a knowledge of his subtlety, and his power and the precise character of his forces; and thoughtful men and brave have confronted him with an ability and a success such as reflects alike upon them and upon their order reputation that may well be held dear. Nevertheless, it is clear that much yet remains to be done. This, as appears on p. 734 of the present volume of the *Mining Journal*, is clear enough in connection with the last previous explosion (the second Ferndale) in South Wales; however wanting in claim to the attention of practical men may have been the verdict of the jury who investigated that cause. We do not assert that in either of the three cases which have just happened the same state of things prevailed as were shown to have existed when the second Ferndale explosion occurred; and we refer now to the evidence of the two Government Inspectors who investigated that accident chiefly because of the great value of the testimony they gave in its bearing upon colliery working generally.

It cannot be hid that Inspectors' official reports, and Inspectors' testimony before coroners, lead to the inference that not only in South Wales, but likewise in certain other districts, there is a need for much completer discipline than is known to prevail. The difficulty in this respect arises, as is well known, out of the sudden development of not a little of the colliery property now being worked chiefly for the supplying of the wants of the steam navy. Modern legislation has come to the aid of colliery managers, who must not fail to use it. We note with satisfaction that summary proceedings are being taken in different parts of the kingdom against men who commit flagrant breaches of the law whilst they are at work. It is well known that it came out in relation to the first Ferndale explosion that whilst the mine was not free from gas, yet that the colliers were accustomed to take off the tops of their lamps to get a light for their pipes. It may well be trusted that the terrible issues following upon that explosion, and upon—amongst others—the explosion at about the same time in North Staffordshire, where also men opened their lamps to smoke, were a sufficient warning to the men in the Swansea Valley to prevent them from sacrificing their lives to the practice; yet it must not be withheld that only last Tuesday a collier was convicted in the Aberdare Police Court of smoking in the Navigation Colliery, and that a charge of carrying a tobacco-pipe (six weeks after the first offence) on the "in-by" side of the lamp station at the same colliery broke down only because the witnesses who could have proved the offence had absconded. Further, that Mr. R. T. CRAWSHAY'S people have taken before the magistrates at Merthyr one of the colliers employed in No. 1 Gethin Pit, who was found attempting to light a match at the gauze of his lamp.

The explosion in the Swansea Valley happened in the night. Every colliery manager knows well that colliers only too often indulge themselves in smoking when they are at work during the ordinary sleeping hours. Certainly with reference to the explosion in Somersetshire, it is made known that when the searching party in going along the main level from the furnace came upon a pillar which had been left standing, in the close vicinity of which it seemed clear that the gas ignited, there, at the back of the pillar, was the corpse of a collier in whose pockets a pipe and some tobacco were found. The pipe may have had no immediate connection with the explosion, but its presence in the man's pocket was conclusive of his flagrant disregard of the safety of himself and his fellows, for the seam gives off plenty of gas, and the managers are prudent enough to interdict the use of gunpowder. When coal has to be brought down they do it by wedging. We again urge upon every one in authority at our collieries to show no mercy to such who will persistently break the rules which have been framed as much for their own safety as for the protection of the property of their employers.

At the same time, managers must be incessant in their efforts to keep their pits as much abreast of the acknowledged best methods of working, and ventilation, and lighting as is possible. It is said and written by men who are incompletely informed that enough air in the workings will stop all explosions, the wilfulness of the smoking colliers notwithstanding. Ventilation is not a preventive of explosions, it is only a partial preventive. As an effectual remedy it has failed on many occasions. If a good plan of ventilation were universally adopted we should, doubtless, have fewer explosions. For instance, if the Durham system were generally carried out we should have to record fewer accidents of this class than now unhappily falls within our duty; but neither that nor any other known system has succeeded in preventing them altogether, even where the circumstances have been in every respect favourable. The safety-lamp has done great things for us, and it will do more yet. The attention

which is being given to the question of lamps, at the instance chiefly of the Northern Mining Engineers, will result in great improvements. Let these be effected at the same time that fans are used where furnaces are ineffectual; let pits be kept as much as possible separated in their several leading portions, and let the discipline be rigid, and British coal mining will yet be much less disastrous than heretofore.

THE DEPRESSION IN TRADE.

Audi alteram partem is a maxim thoroughly appreciated by all classes of Englishmen, and the prominence with which both the metropolitan and provincial press is now giving to the subject of the depression of trade proves an anxious and earnest desire to sift and ascertain the causes which have led to such depression. There can be no disputing the fact, that although there has lately been a partial revival in those staple trades in which we, as journalists, are more immediately interested, in other branches of trade and commerce there is still considerable depression, and that thousands of willing and able artizans and operatives are unemployed. The cause of this depression, therefore, is a question of paramount importance, because that once ascertained a remedy would probably be shortly applied. As deeply interested in the commercial prosperity of the country, we are glad to find the question of its depression so ably and universally discussed, believing that the ventilation which the subject is receiving will result in the diffusion of much useful and valuable information, and tend to bring about the much-desired remedy.

The various articles which have been written, and the great majority of the speeches made, in reference to this interesting question take it for granted that trade and commerce—our mining and manufacturing interests generally—have for many years past, and still are, gradually decreasing. These, however, are mere random assertions, and lack statistical proof. We grant that trade generally has been bad for the last three or four years, and we readily admit, also, that some branches of commerce have been diverted from one part of the country to another, but we venture to question, and that with some degree of confidence, whether, upon the whole, the trade of the empire has decreased to the extent some would wish us to believe, or whether it has been to a greater extent than in many of the Continental and European States. For our own part, we are inclined to attribute the depression which has existed throughout the country during the last three or four years more to the reaction and want of confidence on the part of capitalists, consequent upon the reckless commercial speculations of 1866, than to any cause calculated to create alarm or uneasiness as to our manufacturing interests for the future. The stability of the nation was unquestionably shaken by the sudden collapse of a large number of ephemeral joint-stock companies and undertakings—trade and commerce became unhinged, confidence was lost in many *bona fide* branches of trade and commerce, hence a temporary depression, which doubtless will be removed as confidence is restored, and the large amount of capital now lying idle in the banks once again devoted to its legitimate channels.

Whilst expressing our opinion in reference to the depression of trade, there are other causes assigned, and emanating, as they do, from sound practical and experienced men, are deserving of grave consideration. The depression of trade is attributable on the one hand to the free trade policy, which, if we mistake not, dates back some 25 years; whilst, on the other hand, Trades Unions are said to be the cause of that which all so much regret. Both theories have able champions, and the question at issue is discussed with much ability. It is not a little singular that the question of free trade should now be discussed simultaneously by both England and France, the only two nations who have given the principle a practical trial; and it is only right to state also that in both nations those in favour of the abrogation of free trade, and a return to protection, have latterly made considerable progress, so far as obtaining a hold upon the public opinion is concerned; the arguments adduced are now listened to and received with marked attention, whereas a few years ago a whisper of a return to protection was received with a contemptuous shrug of the shoulder, and a dismissal of the question as not worthy of notice. In England, however, such strength has the question lately gathered that an association has been formed, under the title of "The Association of the Revivers of British Industry," the openly avowed object of which is a return to the principles of protection, the abrogation of which, it is alleged, has led to such disastrous consequences. And whilst such is the case in England, the protection party in France has, it is stated, become so powerful as to be able to enforce upon the Senate a reconsideration of the free trade policy of former days.

The probability, therefore, is that the question of free trade will be again discussed, after a lapse of so many years, and when most people were presumed to have become so convinced of the blessings resulting therefrom as to rest convinced that a return to protection was impossible. It by no means follows, however, that by the question being re-opened the policy will be reversed. Free trade is a blessing, and if the present agitators would expend their efforts in enforcing the principles upon other nations—inducing reciprocity with England—they would be doing a vast deal more to revive British industry than they will ever accomplish by descanting upon a policy which will never be reversed, so far at least as England is concerned.

By far a larger number of persons believe that Trades Unions have a prejudicial effect upon the trade and commerce of England. We should be sorry to say one word in disparagement of the British mechanic or artizan. England has reason to be proud of her working men. No other nation has such pluck, endurance, and perseverance. Without the British workmen England would, indeed, be mere nation of shopkeepers, simply selling and trading upon other nations' goods; but with our mechanics and artizans we, at least, complete with, if we do not out-rival, other nations in manufactures. Whilst, then, our prosperity so largely depends upon our working men, they have an undoubted right to sell their capital—i.e., their labour—in the best market, and to get the very highest price for it. And yet this sale of labour has probably much to do with the depression of trade, and Trades Unions have been instrumental in forcing up wages to an extent which makes it difficult for the British manufacturer to compete with other nations, where labour is so much cheaper. So long as Trades Unions are confined to their legitimate object—the relief of members in times of sickness and distress—they are deserving of encouragement; but every manufacturer knows that practically this is not the object in view, and by far the greater part of the subscribed funds is expended in disastrous "strikes," and other means of keeping up wages to a certain fixed standard.

We need not multiply cases in support of our statement, the notable one of the Thames shipbuilding will suffice. In that case a very large contract was obliged to be given up, for no other reason than the men positively refused to work for a single penny less than the standard 7s. per day wages. The great NAPOLEON is reported to have said that with French generals and English soldiers he would fight the whole world. In a commercial point of view, we say that English capitalists with French or continental artizans, or rather with the same rate of wages as given to French and continental workmen, may defy the whole world in trade and manufacture. Our English mechanic, however, has yet to learn the practical lesson that "Half a loaf is better than no bread;" and if he would only regulate his wages in accordance with the exigencies of the times, avoiding "strikes," and constant demands for increased wages, we shall yet see a return to a healthy state of trade, and our mechanics and artizans in the receipt of good and permanent wages.

CASTINGS.—The quantity of castings exported from the United Kingdom in September was 10,385 tons, as compared with 8720 tons in September, 1868, and 9790 tons in September, 1867. The aggregate exports for the nine months ending Sept. 30 this year amounted to 80,951 tons, as compared with 67,566 tons in the corresponding period of 1868, and 60,014 tons in the corresponding period of 1867, so that, upon the whole, the exports have been making steady progress of late. The exports to Russia have scarcely been maintained at the total which they attained in the first three quarters of 1868; there has been a slight falling off as regards Australia, and a very marked decline as regards India. The exports of castings to the United States are not very large, but they present, nevertheless, a considerable progress. The general miscellaneous foreign demand for

British castings has experienced a very large increase this year. The value of the castings exported in September was 80,946L, as compared with 64,302L in September, 1868, and 71,803L in September, 1867; and in the nine months ending Sept. 30 this year 652,933L, as compared with 537,055L in 1868, and 510,422L in 1867.

NEW COAL-CUTTING MACHINE.

Mr. F. HURD (Hurd and Co., the Union Iron Works, Rochdale), has just patented a new machine, which gives promise of being in every way successful. It is at present at work in a 20-inch seam, making a thin and rapid undercut of 6 feet 6 inches in four minutes. The average depth from the face of the coal is about 3 feet, the width of the clear groove cut being only about one inch and a quarter. The only power required to make that rapid undercut is a 4-inch cylinder, with 6-inch stroke, and gearing three to one, the whole being worked by compressed air. The total weight of the machine is little over 3½ cwt., and it runs on three swing centres, thus enabling the person working it to push the machine in any direction with ease. Already some of the machines are being sent into Yorkshire, and as we purpose seeing them at work we shall be enabled shortly to give a more extended account of their operations, with an account of certain modifications which practice has suggested since they have been at work.

The invention itself consists in cutting horizontal, longitudinal, radial, and diagonal grooves in the coal or other mineral to be excavated, by means of a series of link stocks containing the cutters, which are jointed together in such a manner that no rivets or connecting pins are required. The series of cutters passes around a pulley mounted in a radial arm, and around a toothed wheel fixed to a shaft, which fits in a telescope frame, to increase or reduce its length; the radial arm is provided with grooves which support the back of the cutter stocks, and prevent them from being drawn out of the groove in the radial arm. This toothed wheel is driven to give motion to the cutters by improved motive engine power, or in any other convenient manner. The position of the radial arm is changed so as to give the required cut by a worm fixed to the outer shell of the telescope shaft, and a cam fixed to the driving wheel; this cam by a lever and catch turns the worm at intervals, and thus advances the cutters to the extent required. The engine consists of an oscillating cylinder, to which the compressed air or other elastic fluid is admitted, and from which it is exhausted through two or more ports, the oscillation of the cylinder causing the ports to be opened and closed at the proper times without the aid of eccentricities or valves for giving the requisite to and fro motion to the piston, which is connected to the crank pin in the fly-wheel.

The engine can be reversed by two double taps placed in the passages leading to and from the ports, which taps were connected and worked simultaneously by levers or gearing. The cutting apparatus, and the engine by which it is driven, are connected to a bracket, which fits on a screwed pillar, and it is raised or lowered by gearing connected to the engine, and which gearing reverses the direction of motion up or down by changing the position of the wheels. The bracket also supports two shafts, with two eccentrics for acting on surface clips—one to secure the bracket in the position required, and the other to secure the radial arms. When compressed air is used for producing the motive-power there is a receiver or a set of pipes with the air compressed by a stationary engine, or the fall of the water in the pit, and so conveys the receiver or the set of pipes to the engine for giving motion to the excavating machinery, thereby saving the pipes required for connecting the air-pumping engine with the excavating machine, as is now customary.

The apparatus for compressing the air consists of a series of pump barrels, the pistons of which are worked by a diagonal disc, or other equivalent, the disc being driven by steam or other power, and the pump barrels are all united to the air-receiver. As the pressure increases in the receiver the piston-rods are discontinued in succession from the driving disc, until the final compression is obtained by the last pump barrel. The pumping apparatus is placed in a water-course, to keep the barrels cool.

COLLEGES OF SCIENCE.

We are glad to find that there is every probability of a College of Science being established in Yorkshire on a sound and permanent basis, and having for its object the training of young men in mechanical, mining, and other sciences, so as to fit them to take the highest positions in any branch of industry they may determine to pursue. In scarcely any part of England is the benefit of such an institution more required than in Yorkshire. With extensive mines and collieries, and a large proportion of its population engaged in the raising of minerals, and in the production of every description of machinery and steel and iron goods for all parts of the world, yet there is no institution in it by which a person so desirous could obtain that scientific knowledge which would be of advantage to him in any of those pursuits to which he might turn his attention with a view to becoming master of them. It is now an admitted fact that in the production of the finest qualities of irons and steel the maker relies a great deal on the information which he has gained in the laboratory, as a knowledge of chemistry is necessary in apportioning the fluxes. In our coal mines, also, the managers and stewards ought to be conversant with the science of pneumatics, the nature of gases, and surveying, in order to carry out their duties satisfactorily to their employers, and so to give confidence to the workmen under them whilst following their at all times dangerous calling. But how many of those placed as underground stewards or overmen understand the sciences named? Very many indeed, so far from having received any scientific education whatever, are scarcely able to read or write—or just sufficiently so as to make themselves understood, although the lives of hundreds and thousands of men are entrusted to their keeping. For our mines alone, therefore, the establishment of a College of Science would not only be most valuable to many engaged in mining pursuits at the present time, but would be the means of raising up a class of well educated men, practically acquainted with all the sciences essential to the efficient management of mines and collieries, to follow those who at present fill situations for which they are by no means so well qualified as they ought to be; whilst the result, in all probability, would be a large diminution in the number of those terrible catastrophes which every now and then startle the public in the shape of explosions of fire-damp.

In France, Belgium, and other continental countries institutions of a kindred character to that proposed to be raised in Yorkshire have long been in existence, and the results have been in the highest degree satisfactory, as shown by returns, and also by the positions at present held by persons who attended such establishments as those founded for the purpose of promoting scientific education. In the principal manufactory in France the leading men are found to be those who attended the scientific schools, as are most of those in various other branches of business in which they were engaged. In a report published in the *Moniteur*, so far back as 1868, from the chief railway engineers and manufacturers, it was stated that—"Having under their orders, or as fellow-workers, a great number of the ancient pupils of the National School of Arts et Metiers, they have appreciated the real merits of those schools in different occupations, as mechanics, draughtsmen, managers, and foremen-engineers; that in their opinion the schools of Arts de Metiers are of a utility so incontestable that if they did not exist it would be necessary to create them." If such is the case with regard to France, how very much stronger do those remarks apply to England, where the energies of the greater part of the population are devoted to manufactures and the development of the vast mineral resources which lie buried far below the surface? and where more than in Yorkshire could a college or school for securing scientific education be more fittingly established, seeing that within its limits there is probably more iron and steel produced than in any other part of the world, and where the collieries are amongst the most important in the kingdom, and about the least developed? With regard to mining operations, it may be said that in Yorkshire the want of a scientific institution for the training of persons to fill the leading places in the underground and everyday management of the collieries has long been felt and acknowledged. Hitherto the only knowledge obtained has been by working in the mine, as the engineer and mechanic have to depend

on their workshops for all their scientific education. What is obtained in a mine is naturally of a very limited character, and by no means qualifies a person for being entrusted with a position of responsibility, in which too often the decision of a moment may either save or sacrifice a large number of lives. How different, as we have shown, are those things managed on the Continent, where they are not one-tenth part so much required as in England. Mr. KRUPP, the largest producer of steel and iron on the Continent, and who employs upwards of 10,000 persons at his works in Prussia, bears hearty and willing testimony to the great value of scientific schools. He says, as a rule, all his best managers and men had been educated at the great trade schools and establishments in Berlin. That such would be the case not only in Yorkshire but in any other parts of the kingdom there cannot be the shadow of a doubt. We, therefore, hail with the greatest satisfaction the cheering prospect of the establishment of a Scientific College in that important and flourishing country, feeling assured, supported as this proposal has been by such well-known and influential names in the commercial world as CROSSLEY, AKROYD, MARSHALL, KITSON, RIPLEY, and a host of others equally as familiar, that it will be a great success, and such as will not only be of the greatest advantage to those for whose scientific training it is intended, but also redound to the credit of all who have aided in its formation. Successfully established, we may also look for similar institutions being raised through the liberality of mineral proprietors and manufacturers in most other counties, so that scientific education may become general throughout the country—the rule and not the exception.

COLLIERY VENTILATION.—A case of some interest to colliery managers was heard on the 11th inst. at the Petty Sessions at Over Darwen, near Blackburn. Her Majesty's Inspector of Mines charged the owners of the Hoddlesden Colliery with neglecting to provide the required ventilation. The actual working places and the travelling roads thereto were, it appeared, provided with adequate ventilation, but some side, or far end, places had fire-damp accumulated in them, and this it was alleged rendered the working of the mine unsafe, so as to bring it within the scope of the first general rule of the Mines Regulation and Inspection Act. A penalty of 5*l.* and costs was imposed.

NEW STAMPING-MACHINERY.—The Atmospheric Stamps, of which we gave a description in the Journal of Nov. 6, and the particulars of the experiments at the works of Messrs. Harvey and Co., Hayle, Cornwall, have, on further trials, proved quite satisfactory, and it is now generally considered that the invention will alter the stamping process materially. One of the best mechanical men of science in England was at Hayle last week to see it work, and he said it was decidedly not only a success, but it would revolutionise the process.

DISCOVERY OF MINES IN INDIA.—Very extensive discoveries of valuable mines in the Himalayas have lately been made by Mr. Calvert, formerly an officer of the Eastern Bengal Railway Company. The products include silver, lead, antimony, zinc-blende, copper, and some gold. One mine, at Shigri, on the old boundary of Northern India, is described as an enormous lode, in which the ore is several feet thick and solid. The others are principally in the Vazeeri Rupi (the Silver Country of the Vazeers), a name it was long known by, being so described in the maps as part of Kirloog (Long. 77, Lat. 32, north). The mines are situated near the River Parbatti, having plenty of water-power close at hand, and are in the midst of forests of pine. The discovery is said to have created a sensation, not only on account of their being the first discovered in the locality, but also for their richness in the precious metals. It is proposed to form a company in England to work them. All the produce can be disposed of in India, the railway being but a few marches off.

EMERY-STONE.—It is stated that Messrs. Emile Erlanger and Co., of Paris, have entrusted to the Naxos Emery-Stone Company (Limited), of which company Mr. R. B. Goldsworthy, of Manchester, and Mr. J. Oakley, of London, are the principal shareholders, the entire control of the business in the Naxos Emery-Stone during the whole period of the seven years conceded to them by the Greek Government.

AUSTRALASIAN GOLD.—The total receipts of gold at Sydney in July from the gold fields of New South Wales amounted to 11,407 ozs., as compared with 26,049 ozs. in July, 1858. The aggregate receipts for the seven months ending July 31 this year amounted to 142,789 ozs., as compared with 148,624 ozs. in the corresponding period of 1858. There was slight increase in the receipts from the northern fields, but a decline as regards the southern and western fields. From Jupiter Creek, in South Australia, the last advices have been comparatively unimportant. A few of the reefs were still being worked, and a reduced number of men were engaged in the workings. At Barossa the cement crushing was yielding excellent results. The Murray Flats gold fields, in South Australia, is attracting some attention; a reef which has been opened up looks very well indeed, plainly showing gold.

SCIENTIFIC NOVELTIES IN AMERICA.—The American Government has recently been receiving the mineral called Mica from several new localities in the new territories where it is found in great abundance; and important experiments have been made for the purpose of transforming this article into brocades or bronze colours, whereby a new field is opened to the utilisation of this mineral. The experiments have been eminently successful. New developments have also been made in New York City, whereby Manganese is to bear an important part in the production of oxygen on a large scale; and the fact is interesting, in view of the recent discovery, in immense quantities, of this important mineral. A few weeks ago a lump of virgin Gold, valued at \$180, was found in an open field within 10 miles of this city. It was picked up by a boy to throw at a cow, when he was attracted by its weight, and carried it to his mother. Since that time the speculators have been ravaging the country—hope springing “eternal in the human breast.” A Loom is now on exhibition in New York which is capable of weaving cloth 6*½* yards in width; also a Centrifugal Pump, which has the power of raising in one minute not less than 25,000 gallons of water. From the Granite quarries of Monson, in Massachusetts, there was recently taken a slab 350 ft. in length, 11 ft. wide, and 4 ft. thick, measuring altogether 15,400 cubic feet, and weighing 1283*½* tons.

MINING EDUCATION IN PRUSSIA.—The Royal Prussian School of Mines in Berlin appears to be making very satisfactory progress, the number of students attending the courses for this session being upwards of 70, including Austrians, North Americans, and Englishmen. During the first year the student is instructed in mathematics, experimental chemistry, experimental physics, mineralogy, palaeontology, general smelting processes, and drawing. In the second year the courses include mining, smelting, salt manufacture, general analysis, blow-pipe analysis, metallurgical technology, surveying and dialling, mechanics, miners' and surveyors' drawing, geognosy, petrography, mineralogical practice, and *viva voce* examination upon mineralogical subjects. And in the third and last year the lectures are upon the principles of machinery and machine construction, mineral analysis and mineral chemistry, analysis of iron, chemical technology, geology, and mining laws. During the summer session the lectures commence at 7 o'clock in the morning, and continue almost uninterruptedly until 6 o'clock or 7 o'clock in the evening, but in the winter session they are one hour later, both in commencing and closing. Iron smelting is taught by Bergrath Dr. Wedding, who has had the opportunity of studying the various processes carried on in all the principal iron-making districts, whilst the mining chair is entrusted to Bergrath Hauchecorne; that of chemical technology, blow-pipe, and general analysis, &c., to Prof. Kerl; metallurgical analysis to Dr. Dürr; mineral chemistry to Dr. Rammelsberg; mineral analysis to Dr. Finkener; mechanics and machinery to Dr. Hörmann; and other subjects to equally competent instructors, so that there need be no misgivings as to the quality of the instruction obtainable at the school. Yet the fees payable are quite trifling in comparison with those we are accustomed to in England (the English fees, by the way, being so exorbitant that but few of those to whom a mining school education would be useful are able to pay them), and many of the courses are entirely free. The charge for attending the mining lectures, which occupy five hours per week, is (5 thls.) 1*½* s. 6*d.* for the

winter session, and (4 thls.) or less than 1*s.* for the summer session; general analysis is taught for six hours per week for (9 thls.) 1*½* s. for the half-yearly session, and the other courses are equally cheap. The advantages of the school are thus placed within the reach of all, and the institution is made to render a full return to the country for the amount of State support which it receives.

REPORT FROM WARWICKSHIRE.

In a very old dusty volume on mining in Warwickshire we notice the following:—“The quality of the coal, generally, is not equal to that of Staffordshire and Shropshire. It is good for domestic purposes, but would not produce coke of sufficient strength to be used in iron furnaces; it is not eligible for blacksmiths' fires.” In the same work appears the statement—“There are no ironstone measures in this district of quantity and quality sufficient to authorise the working of them.” Stow, in his notes on “Leland's Itinerary,” speaking of the homely manufactures of Birmingham, says:—“They get *yren* out of Staffordshire and Warwickshire, and *see coale* out of Staffordshire.”

Our report of to-day is in direct opposition to the ancient report here recorded. We do find the coals can be used for manufacturing purposes, and we do find the ironstone in sufficient quantity and quality to work with advantage. A manufacturing firm near Birmingham are now entering into a contract for 1000 tons of what is termed “common coal.” We cannot understand why the Staffordshire miners do not get an importation of Warwickshire coals, and make a fair trial with them in the smelting furnace. As regards the fuel being unfit for coking, that is not so significant a qualification as it was in days of old. It is found in these latter days that raw coal of a certain character can be used with greater advantage than with so great proportion of coke. Besides, the objection raised against tender and small coals is rendered *nil* by the present system of working furnaces. The demand for best two-yard, for home consumption, is brisk, at 10*s.* per ton. The truck demand, however, is not so encouraging; there is a slight falling off; perhaps this is owing to the winter prices just coming on. Fluctuation is the characteristic of the Warwickshire coal trade.

Staffordshire buyers of ironstone are rather hanging fire at the Staffordshire buyers of ironstone are rather hanging fire at the stone. What with the advance in iron, wages, and mineral, we do not wonder at cautious trading. Warwickshire seems to be free from the “ills” which causes her neighbours to hang down their heads, in the matter of wages. The miners here are well paid, and seem satisfied, and the best thing for them to do is to keep so. As a class, they are different from the same *genus* elsewhere. Ignorance of anything outside their own domain is a noticeable feature. Perhaps in this case the old statement has some virtue, “Where ignorance is bliss 'tis folly to be wise.”

REPORT FROM THE NORTH OF ENGLAND.

Middlesborough, Nov. 17.—The market yesterday on ‘Change here was, perhaps, not quite so strong as the two or three previous ones; 50*s.* for No. 1, 46*s.* for No. 3, and 45*s.* for No. 4, f.o.b. at makers' works, were asked and got, for cash payment; but buyers were not so eager and determined to purchase as on last Tuesday. Quotations were asked for two or three large parcels, and in these cases a slight concession was made by the sellers, who are open for orders, though generally prices were firm, and a good deal of business was done at the above rates; but some of the large firms, who are well sold forward, refuse to yield just at present. Deliveries of iron have much improved since the favourable change in the weather which set in a few days ago, but the scarcity of vessels is still greatly felt; a great quantity of pig metal is lying ready for shipment as soon as craft arrives. The make of pig in the district is well kept up, and, considering the recent prolonged hindrances to the usually heavy water deliveries, the quantity going into stock is very small. The report of the Middlesborough Chamber of Commerce for the quarter ending September, which has just been published, says:—The make of pig-iron in the immediate vicinity of Middlesborough was as follows:—July, 72,282 tons; August, 71,819 tons; September, 71,368 tons; total, 215,469 tons. The quantity shipped, according to the Custom House returns, from Middlesborough was:—

	Foreign.	Coastwise.
July.....	15,045	10,974
August.....	17,067	11,278
September.....	18,099	16,566
Total tons.....	50,211	38,818

Cleveland iron warrants are not much dealt in at the present moment, and are quoted at 46*s.* 6*d.* sellers, 46*s.* buyers, cash. The stock in store is still gradually reducing, being yesterday quoted at 36,174 tons, as against 37,024 tons the previous week. The total reduction in the stores since Feb. 1 last up to yesterday is 20,528 tons.

In Manufactured Iron there is continued activity. The rail mills are all working good time on winter orders, and the plate, angle, and bar mills are also well supplied with work. Rail enquiries are not quite so numerous as they were a little time ago, but still there is a fair prospect of a good trade next year, if the wages question can be satisfactorily arranged, and no interruption takes place between masters and men. The shipbuilding trade continues brisk, and prices for iron for this purpose maintains the late improvement. New foundry work is scarce; some foundries are well employed, but others are only moderately supplied with orders.

The adaptability of Cleveland iron for the manufacture of wire is receiving good proof by Messrs. Hill and Ward, at their Newport Wire Works. We understand they are well stocked with orders—indeed, have more to do than they can conveniently accomplish.

The collieries are generally fully employed, though some of them have been interfered with by the late gales preventing the arrival of vessels for taking in coals. A few are now making the ports, but freights asked are considered to be very high. Coke-makers are, in most cases, heavily committed in contracts.

[The paper on the Salt Bed at Middlesborough, read by Mr. W. H. Peacock at the Cleveland Literary and Philosophical Society, is published in the Supplement to this week's Journal.]

TRADE OF THE TYNE AND WEAR.

Nov. 18.—The Coal Trade is still depressed from the want of ships, a large fleet of vessels having been wind-bound on their way to the North. On the arrival of the fleet it is expected the trade will continue pretty steady for some time, and an increased demand may be anticipated, owing to the cold weather which has set in. From the Wear the rate has been even higher than from the Tyne, as much as 9*s.* 6*d.* per ton having been paid to London. The prices of coals have materially advanced in the southern ports, so that if even the fleet of vessels at present detained get down the freights will continue pretty good for the remainder of the year. At the Hartlepools another week of unexampled dullness has been experienced, owing to contrary winds, and there are very few vessels in the ports.

The Iron Trade continues to advance, the demand being good, and increasing for pigs, bars, and plates, and, consequently, prices are also gradually improving. Should this continue, of which there is little doubt, an increase in the number of furnaces in blast on the Tyne and Wear may be expected, although, as most of the furnaces out of blast are of the old construction, there is some difficulty here, but a good demand, and good prices must sooner or later cause an increase in the number of furnaces in blast. The introduction of the Ridsdale pigs here is an important event, as it has enabled a very superior kind of iron to be manufactured, and this is being done pretty largely by Messrs. Hawks and Co., and also by Messrs. Abbot, in Gateshead. The Ridsdale iron is capable, either alone or by mixing, of producing a description of iron of the very highest class, and this is now produced and rolled at these rolling-mills for the purpose of manufacturing the guns and other high-class productions at the manufactory of Sir Wm. Armstrong and Co., at Elswick. The rolling-mills at Abbot's are now doing a large amount of work, some heavy orders having been got lately for angle bars, ship-plates, &c. The demand for rails is also good, although stocks have accumulated lately owing to the want of shipping.

There is nothing particular to report at the various collieries, all that is wanted appears to be ships to enable all of them to get into tolerably good work; and there is a satisfactory understanding ge-

nerally between the masters and men. The late attempt to get up a Union, and sow discord in Durham, appears to have almost entirely failed, at any rate, the party who made the attempt appears to be very quiet at present.

Machine ventilation continues to make good progress, and it appears no longer doubtful as to which is understood to be the best machine yet introduced into this country. It is a fact that the Guibal ventilator is gradually making its way, and is engaging the attention of all parties interested in the opening out of new establishments or mines. The agent for the Guibal ventilator for Great Britain is Mr. D. P. Morrison, of Bulman Village, near Newcastle, and as is well known, that gentleman has had considerable experience with this ventilator. It has been introduced at several new collieries of late, and has been found to perform all that could be required of it. Black, Hawthorn, and Co., Gateshead, have a considerable number of these machines on hand, including one 40 feet in diameter, for a colliery in Wales.

NEW IRONSTONE BEDS IN DURHAM.—It has long been believed that ironstone existed in the hills above Middleton-in-Teesdale, towards the High Force district. Some time since the locality was visited by the Duke of Cleveland, who owns the land in the district, and other gentlemen, who examined the locality, iron ore being taken to Middlesborough to be smelted, which proved to be of superior quality. Lately Messrs. Pease, of Darlington, have had men exploring in the locality, and last week discovered a very valuable bed of iron-stone at Park End, at a distance of not more than 1*½* mile from the Middleton terminus of the Tees Valley Railway. A proposed extension of the Tees Valley Railway into the district has been broached, and appears likely to find favour.—*Newcastle Daily Chronicle.*

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Nov. 18.—The Coal and Iron Trades throughout the greater part of Derbyshire are now more active than they have been. The demand for manufactured iron is tolerably firm, pipes and other castings being now in very fair request. The winter trade being now fully set in, there is a very good business being done in House Coal, not only for London and the South, but also for the Midland Counties. Steam and Gas Coal also meet with a good sale, so that the collieries are now kept fully going, as a rule. The endeavour to establish schools for technical education has been attended with the greatest success in the northern part of Derbyshire, the classes at Clay Cross and Staveley not only having been well attended, but those who offered themselves as members have shown an evident desire to participate in the benefits they were established to confer on all who desired improvement. It is expected that the branch line of the Midland Railway between Sheffield and Chesterfield will be gone over at the close of the present week by the Government Inspector, after which a large amount of mineral traffic will be thrown on to the main system.

The heavy Iron and Steel Trades of Sheffield are now tolerably well off, although so much cannot be said of some of the lighter steel branches. Heavy armour and other plates appear to be in large request, as is also locomotive and other machinery. The iron works in the neighbourhood of Rotherham are now kept well going, there being a very good demand for rails, tyres, girders, and other descriptions of manufactured iron. At Milton and Elsecar, also, there appears to be no lack of orders, nearly every branch being as busy as it well can be, so that the Messrs. Dawes are turning out a very large quantity of manufactured goods, rails more particularly, and for which the firm have long maintained a very high reputation. Bessemer steel goods are in far better request than they have been for some time, and some very large orders, indeed, are said to have been received at the works of Messrs. Cammell and Co. (Limited), and which will take some time in producing. The Coal Trade is a great deal more active than it has been, and a much larger tonnage is now being forwarded to London than for some time past. Steam Coal is also in good request for the ports of Hull and Grimsby, shippers to the North of Europe forwarding as much as they can, seeing that the present voyage is likely to be the last for the season, the Baltic having kept open rather longer than usual this year. To Lancashire there is a little more doing, but prices have not materially improved.

A considerable advance has been made during the week in bringing some of the disputes which have for a long time raged in the district to a close. On Monday the workmen of Mr. Clarke resumed work, both parties having agreed to leave the matter in dispute to be settled by Mr. W. S. Stanhope, one of the late candidates for the representation of the West Riding, and his decision, it is expected, will be given on Friday. At No. 2 Mount Osborne Colliery the men resumed work on Tuesday, the executive of the Miners' Association not having agreed to support the men, who took on themselves to strike without consulting that body. There is no change at the Chapeltown and Thorncleiff Collieries, the proprietors having refused to waive the decision first come to, of making terms with the men individually, one of the main conditions of solving the dispute. Mr. Hantsman's “free labour” men continue to work, and there appears little or no likelihood of any alteration in the position taken by either side. At some of the collieries in the West Riding there are signs of an outbreak, and meetings of men are being held in various colliery districts.

THE MOSS HALL COLLIERY EXPLOSION.—A fearful explosion, resulting in the sacrifice of at least 27 lives, occurred on Monday afternoon, at the No. 5 pit of the Moss Hall Coal Company. The pit, which is an upcast pit, used for winding, pending the completion of No. 6 pit, is situated in Hindley, about 150 yards from the Platbridge station on the Eccles, Tyldesley, and Wigan Railway. The colliery is comparatively a new one, having only been opened out within the past two years, so that the difficulties of dealing with fire-damp could not have been very great, more especially as it is said that the mine was not ordinarily considered to be fiery, and that the boundary is in no place more than 35*s.* yards from the pit eye. The seams worked are the 5-ft., the 4-ft., and the 6-ft., all in the Wigan bed. The blast of the explosion considerably damaged the cage, literally doubling up the iron plate at the bottom, but fortunately the head gear was not too seriously damaged to make it once available for the exploring parties. Among those who first descended the shaft were Mr. John Higson, who attended on behalf of his father, the Government Inspector; Mr. Howarth, Mr. Clark, Mr. Sharrick, and others; whilst Messrs. George Caldwell, H. D. Croft, J. Litham, and others connected with the management of the pit used their utmost exertions at surface, and received material aid in the way of suggestions from Messrs. T. Knowles (Pearson and Knowles), Smithworth (Hindley Geen Company) Cross (Cross, Fletton, and Co.), Pickard, miners' agent, and others. No opinion can as yet be expressed with regard to the probable cause of the explosion, but it was remarked that the barometer was exceedingly low on the day of the catastrophe.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Nov. 18.—There a good demand for Manufactured Iron, and most of the works in the two districts of Staffordshire are going full time. As yet, however, they are mainly engaged on contracts at the old prices, and it remains to be seen whether the books will be filled again at the advance of 20*s.* per ton. To work at the lower and pay wages at the higher price will be rather a sharp pinch for some of the iron-masters, especially those who buy their cast and pig iron, and have not long contracts running. We hear of a few orders at the advanced rate, but as yet it cannot be said that buyers have acceded to the advance, and we must wait to see whether, when present contracts are exhausted, they will be renewed on the new terms. Your correspondent in South Wales says the advance of 20*s.* per ton caused considerable surprise in that district. That is only natural. The advance appeared to be drifted into like the Crimean war. The current of the iron trade may, and it is to be hoped will, flow so vigorously as to float the trade with this extra 20*s.* of draught, but as yet it is matter of speculation. If wages are not advanced elsewhere Staffordshire must fail to compete for orders. It is, however, highly probable that at the end of the year there will be a general advance. There are rumours of a movement in that direction in South Yorkshire, and doubtless the men in the Tees Valley will ask for the rise as soon as their present arrangements are terminated; and South Wales, slow as it is to move, can hardly fail to follow in the wake. But all this will depend on the continuance of the demand.

IMPORTANT AND EXTENSIVE IRONWORKS, AT LAWTON, NEAR SHIFFNAL, SHROPSHIRE,
Joining the Great Western Railway.

TO BE SOLD, BY PRIVATE CONTRACT, subject to conditions as to title, all those recently and substantially-erected WORKS, situated near to SHIFFNAL, and known as

THE LAWTON IRON AND STEEL WORKS,
Lately in the occupation of the LAWTON IRON AND STEEL COMPANY (LIMITED).

The premises have been built regardless of cost on the most improved and economic principles, and judiciously arranged throughout with every convenience for carrying on an extensive and profitable trade.

The erections comprise lofty sheet mill, with iron-plate floor, containing one 4 ft. by 20 in. and one 3 ft. by 18 in. train of rolls, both trains worked by a 50-horse high-pressure horizontal steam-engine, four heating and annealing furnaces, three pair cropping and shearing shears, wood engine-house, and 6-horse pumping engine, two wells, cisterns, &c., with lofty stack; a conveniently placed set of offices, commodious warehouse, iron-plate floor, with store room and stocktake's office attached, fitted with Kitchin's patent weighing machine, to weigh 30 cwt., cutting shears, &c., opening on to the railway siding by folding doors, with shed roof over.

Excellent wire mill, iron-plate floor, two trains of rolls complete, with supplementary speed to finishing rolls; also a train of rolls, the whole worked by a 30-horse high-pressure horizontal steam-engine, and two heating furnaces adjoining, covered with shed roof; two capital firing boilers, one 30 feet by 6 feet, one 24 feet by 6 feet.

Grease store and vault under superior eight-hole casting shop, capacious water cistern and supports, with vertical pumping engine, well reservoir, &c.

Lath shop, with powerful lathe, 24 feet bed, capable of turning sheet, forge, and wire rolls; massive crane, and 6-horse high-pressure engine and boiler, slack hole, and stack; millwrights' shop, blacksmiths' shop, with double hearth, &c.

The Old Forge, iron-plate floor, 75 feet by 48 feet, with 16 in. forge train, by Perry and Son, for bills; set of rolls for bars, worked by 40-horse horizontal high-pressure steam-engine, two force pumps, two pair shears, &c.; 6-ton helve, or tilting hammer, with machinery all complete, worked by a 25-horse high-pressure steam-engine, twelve puddling furnaces, and shed roofs attached; six powerful boilers, and two lofty stacks.

Clay house and mine house, two-stalled stable, and gig-house. The New Forge, with iron-plate floor, 72 feet by 33 feet; forge train complete, 5-ton tilting hammer, worked by a 30-horse horizontal high-pressure steam-engine, with three 12 feet by 7 feet boilers, four puddling furnaces, and sheds over, and lofty stack.

Charcoal Forge, with three fires on the hollow principle, 4-ton helve, and grindstone, attached, driven by a 30-horse high-pressure steam-engine, with blowing cylinder, blast regulator, &c.; machine house, with Kitchin's patent machine, to weigh 15 tons, stable, &c.

There are six comfortable cottages, for the accommodation of the workmen, let at 2s. a week each.

The whole of the above, with a large portion of the railway siding, comprise an area of 2½ acres, which is freehold of inheritance.

The works are admirably situated on the Great Western Railway, affording direct communication to all parts of the kingdom. They have been erected in a most substantial manner, are in full working order, and immediate possession can be had, whilst their contiguity to the recently-discovered coal fields of Lord Granville and others, in the immediate neighbourhood, considerably enhances their value.

The whole of the TRADE PLANT, FIXTURES, and COSTLY MACHINERY will be included in the sale.

Further particulars may be had of Mr. ANDREW PHILLIPS, Solicitor, Shiffnal, and Messrs. FALLOWS and SMITH, Temple-row, Birmingham.

TO COALMASTERS AND IRONMASTERS.

TO BE SOLD, OR LET ON ROYALTY, THE MINE OF COAL under about FIFTY ACRES of LAND adjoining a railway.

For particulars, apply to Mr. G. DAVIDSON, Mawley, Cledbury Mortimer, Salop.

FOR SALE.

THE ULING COAL MINES, situated in the district of NAGA, in the Island of CEBU (Philippine Islands). The distance from the mines to the sea shore is 10 kilometres, the whole of which is a carriage road.

The company possesses a royalty of 60 lots, comprising together 9,000,000 of square metres of ground, with several seams of COAL, two of which, of three and four metres in thickness, have been proved through a distance of two kilometres.

The principal workings consist of two drifts, each 550 metres in length, which have already cut through three of the coal seams, and are now (August, 1869) calculated to be within 50 metres distance of the large ones, and at a depth of 150 metres from the surface of the ground.

The Spanish war steamers have made use of this coal, the consumption of which has been recommended by the Government.

The company have cattle in abundance, carts, and every requisite means for conveying the coal as quickly and as economically as possible.

There are in the neighbourhood of the mines large forests, and large lots of uncultivated ground, which now produces timber necessary for the use of the mines, and which may afterwards be turned into tobacco or sugar cane plantations, for which purpose it is admirably adapted.

The mines in the Philippine Islands are not subject to any tax, and all machinery required for coal digging, &c., is free of any duty.

The laws allow any foreigner to purchase, keep, and work the mines.

The sale will take place in Manila, by public auction, on the 31st May, 1870.

For further particulars, apply to ROXAS HERMANOS, or to ANTONIO DE AYALA, Manila.

FOR SALE, IN NORWAY.

EXCELLENT NICKEL MINES, which are now so far advanced that the working of the same can be commenced forthwith, are OFFERED FOR SALE, on very advantageous terms.

The deposits are large, and are said to be among the best ever found in the country, and there being great facilities for transport, the working expenses will be considerably lessened.

As to information for price and conditions, apply to the British Consul, Stavanger, Norway, and letters for this gentleman, addressed to the care of Head, Mathian, and Co., No. 6, Billiter-street, London, E.C., will be forwarded immediately.

RHENISH PRUSSIA.

SEVERAL VALUABLE MINES FOR SALE,—LEAD COPPER, BLEND, and IRON. The Mining Laws of Prussia give with the concession to work, an absolute right of property in the mine for ever, subject only to a royalty of 2 per cent.

Apply to Mr. YOUNGHUSBAND, 6½, Wilhelm Strasse, Bonn-on-the-Rhine.

THE HENDREDDU SLAB QUARRY TO BE LET, on the

ABERLEFENY VEIN, situated about three and a half miles from a railway station, in a very advantageous place to work. The sett contains about SEVEN or EIGHT HUNDRED ACRES, with water power to work a large number of machines. The quarry is sufficiently open to prove the quality of the rock and the regularity of the foot joints, which are good. Slabs of large dimensions are made, which can be seen.

Apply to Mr. EDWARD DAVIES, Mawddwy Cottages, Dinas Mawddwy, Merionethshire.

TO BE SOLD,—A DIRECT-ACTING HIGH-PRESSURE PUMPING ENGINE, with cylinder, 70 in. diameter, and 9 ft. stroke, standing over the shaft, fitted with metallic piston, hammered iron piston rod, crosshead and coupling plates to mate pump rod, east iron slide bars and slide blocks, foundation beams, and holding down bolts. The valve box is fitted with two brass equilibrium valves and seatings, and two regulating valves. The valve stem is worked by tappets and two cataract pumps, the steam pipe up to and including a steam stop valve, and the exhaust pipe up to and including a cast iron cistern for heating the feed water.

The main pump consists of a 21 in. ram pump, about 125 yards in length, with brass clucks and leather lids; also a 17 in. ram pump, about 60 yards in length; and a bucket pump, 18 in. diameter, about 40 yards in length.

The main pump rod is of good pitch pine timber, about 14 in. square, jointed together with hammered iron plates and bolts.

The whole of the work was made by Mr. Robert Daglish, of St. Helens Foundry, and is in good working order, having only just stopped work from the water having been drawn off to another level, and may be seen any time on application at the Peasley Cross Colliery Office, St. Helens.

FOR SALE,—THE UNDERMENTIONED ENGINES:—

ONE 50 in. cylinder PUMPING ENGINE; with ONE BOILER.

ONE 36 in. cylinder ROTARY STEAM ENGINE, 9 ft. stroke, with 10 ton BOILER, wrought-iron fly-wheel shaft, and 12 ton fly wheel, nearly new from the works.

ONE 12 in. cylinder rotary STEAM ENGINE, with ONE 6 ton BOILER.

THREE Cornish BOILERS, from 10 to 12 tons each, in excellent condition.

Also, several Cornish CRUSHERS, of various sizes.

For further information, apply to W. MATHEWS, Engineer, Tavistock.

Tavistock, Aug. 17, 1869.

FOR SALE, cheap, a 25-horse power PORTABLE STEAM ENGINE, new, and with all recent improvements, guaranteed.

FIRST-CLASS PORTABLES, 9-horse power, 12-horse power, and 14-horse power, which only consume 5 lbs. of coal per horse power per hour, on advantageous terms.

FOR SALE, SEVERAL SECONDHAND PORTABLE STEAM ENGINES, by eminent makers, in excellent condition. Also a MORTAR MILL.

BARRROWS AND STEWART, ENGINEERS, BANBURY.

BRITISH, COLONIAL, AND FOREIGN PATENTS REGISTRATION OF DESIGNS, COPYRIGHTS, TECHNICAL TRANSLATIONS, DRAWINGS, &c.

MICHAEL HENRY, Mem. Soc. Arts, Assoc. Soc. Engineers, Compiler of the "Inventors' Almanac," and the Author of the "Defence of the Present Patent Law."

PATENT REGISTRATION AND COPYRIGHT AGENT AND ADVISER.

Mr. HENRY has had especial experience in technical French, and in French Manufacturing and Commercial Matters.

Inventors advised in relation to Patents and Inventions and Industrial Matters. Printed Information sent free by post. Specifications drawn and revised.

Searches conducted. Abstracts, Cases, and Opinions drawn and revised.

Offices, 68, Fleet-street, E.C., London, corner of and entrance in Whitefriars-street.

In the Court of the Vice-Warden of the Stannaries, Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the PENHALLOW MOOR MINING COMPANY.—Notice is hereby given that ALL CREDITORS of the above-named company are REQUIRED, on or before the 1st day of December next, to SEND IN THEIR NAMES AND ADDRESSES, and the AMOUNTS and PARTICULARS OF THEIR SEVERAL CLAIMS on the said company to the Registrar of the said Court at Truro.

FREDERICK MARSHALL, Registrar of the above-named Court. Dated Registrar's Office, Truro, Nov. 15, 1869.

In the Court of the Vice-Warden of the Stannaries, Stannaries of Devon.

IN the MATTER of the COMPANIES ACT, 1862, and of the LEWOOD MINING COMPANY.—The Registrar of this Court has appointed Monday, the 29th day of November instant, at the Registrar's Office, Truro, to SETTLE the LIST of CONTRIBUTORIES of the ABOVE-NAMED COMPANY, now made out and deposited at the said office.

FREDERICK MARSHALL, Registrar of the said Court.

Dated this 18th day of November, 1869.

ON TUESDAY, NOVEMBER 23d, 1869.

Eleven o'clock in the forenoon.

At NORTH CHIVERTON MINE, About FIVE MILES NORTH OF TRURO.

MR. BURGESS is instructed TO OFFER FOR SALE, in One Lot, or Lots, as may be deemed expedient by the Auctioneer and the company's agents, viz.:—

A bright 50 in. ENGINE, 10 ft. stroke in cylinder, 9 ft. in shaft; first piece of rod erected about five years; and 11-ton BOILER, with fittings.

160 ft. shaft shears, oak caps; 154 ft. ditto ditto, deal caps.

200 fms. flat-rods, 8 in. x 6; plates; pulleys; faggotted main caps; all erected within the last 12 months.

28 arm capstans, oak axle; 150 fms. 12 in. rope, very good.

1 arm capstan; 150 fms. of 3/4 capstan chain.

120 fms. pitch pine rods, 9 in. x 12 in.

300 fms. horse whm chain; 3 horse whm; horse whm kibbles.

160 fms. ladders; 130 fms. casing and dividing plank; 7 large wood sheds.

A one horse crusher and gear complete.

WITHIN A LARGE AND LOFTY WOOD SHED.

One large carpenters' shop and saw house; a quantity of flooring; strips; tools, &c., and lead dressing; scales, beams, and weights.

LARGE double crab winch; single, double, and treble blocks; large drop screw.

PITWORK.

120 fms. plunger and drawing lifts, bottom complete; 7, 11, 12, and 13 in. fagotted and hammered rod plates, bolts to match; sundry iron, steel, and wrought and cast iron.

Dated Barncoose, near Redruth, November 3, 1869.

TO COLLIERIES PROPRIETORS, AND OTHERS.

PRELIMINARY NOTICE of an IMPORTANT SALE of VALUABLE PLANT AND MACHINERY, at the WYNN HALL COLLIERIES, near RUABON.

MESSRS. CHURTON AND ELPHICK beg to announce that they have received instructions to SELL, BY AUCTION, on Wednesday, the 1st day of December, 1869, and following days, the WHOLE of the WINDING, PUMPING, and DONKEY ENGINES, FIVE large BOILERS, pit-head and pulleys, screws and tipters, complete sets of 8 in. and 11 in. pumps, 20 ton railway weighbridge (by Kitchin), and other weighing machines, powerful capstan winch, several hundred yards of railway branches, with numerous points and crossings, about 100 tons of pit rails and plates, large quantity of hatches, various wooden and galvanised buildings, and roofed stages; and numerous other articles of plant appertaining to the colliery, full particulars of which will shortly be published.

BY ORDER OF LIQUIDATORS.—SPAIN.

The THREE VALUABLE FREEHOLD COPPER AND SULPHUR MINES, known as Lapilla, Companario, and Evidencia, the property of the Lapilla Pyrites Company (Limited), together with the PLANT and MACHINERY, and cottages for about 200 miners, advantageously situated in the province of HUELVA, SPAIN, within easy distance of the important port of Huelva, near to Tharsis Mine and Tharsis Railway; also upwards of 3000 tons of ore now lying on the banks of the Lapilla Mine.

MESSRS. DEBENHAM, TEWSON, AND FARMER WILL SELL, BY AUCTION, at the Mart, near the Bank of England, in the City of London, on Tuesday, November 30, at 2 o'clock, the desirable and valuable FREEHOLD MINES, known as

LAPILLA, COMPANARIO, AND EVIDENCIA.

Situate in the province of HUELVA, SPAIN. They have been fully opened, and preparations have been made for carrying on operations on an extensive scale. Upwards of 11,000 tons of the mineral have been supplied to large manufacturing firms in ENGLAND, who are willing to bear testimony as to its value; also upwards of 3000 tons of pyrites ore.

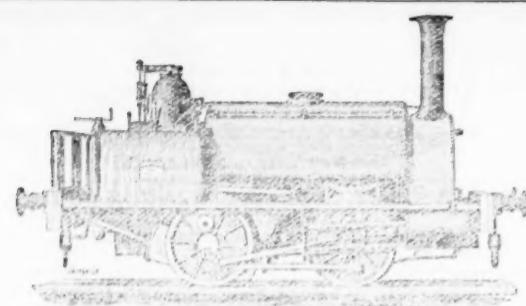
Particulars, with conditions of sale, may be obtained of Messrs. LEWIS, MUNNS, NUNN, and LONGDEN, Solicitors, 8, Old Jewry; and of the Auctioneers, 80, Cheapside, London.

IN VOLUNTARY LIQUIDATION UNDER THE COMPANIES ACT, 1862, THE LLANGYNOG UNITED MINING COMPANY (LIMITED).

VALUABLE LEASEHOLD LEAD MINE, AND MINING PROPERTY, PLANT, AND EFFECTS FOR SALE.

MR. T. W. HILL is instructed by Mr. Robert Woodford, the Liquidator appointed by the Company, to OFFER FOR SALE, by AUCTION, at the Wynnstay Arms Hotel, in Oswestry, on Thursday, the 9th day of December, 1869, at Three o'clock in the afternoon precisely, in one or more Lots, and subject to conditions then to be produced, THE ENTIRE BENEFICIAL INTEREST of the LLANGYNOG UNITED MINING COMPANY (Limited), in the LLANGYNOG LEAD MINES, comprising all the valuable Productive and Extensive Mines, Veins, and Beds of Lead, Ores of Lead, and other Metals and Minerals, known collectively as the Llangynog Lead Mines, Reservoir, Water Supply Rights, Easements, and Interests thereto belonging or appertaining, comprised in the respective leases, licences, and agreements for leases, under which the same are now held and have been long worked by the company, situate in the several parishes of LLANGYNOG and PENNANT, in the county of MONTGOMERY.

And also the WHOLE of the MOVABLE PLANT and MACHINERY of the said company, which comprises TWO POWERFUL WATER WHEELS for pumping and winding, with all necessary gearing, capstan, ropes, and apparatus, office furniture, and other effects at the mine.



**TANK LOCOMOTIVES,
FOR SALE OR HIRE.**
HENRY HUGHES AND CO.,
LOUGHBOROUGH.

BICKFORD'S PATENT SAFETY FUSE

Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXPOSITION" held in Paris, in 1865; at the "INTERNATIONAL EXPOSITION," in Dublin, 1865; and at the "UNIVERSAL EXPOSITION," in Paris, 1867.

BICKFORD, SMITH, AND CO.,
of TUCKINGMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—
EVERY COIL OF FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN OF GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.

ESTABLISHED MORE THAN HALF A CENTURY.

**THE TAVISTOCK FOUNDRY, IRONWORKS,
AND HAMMER MILLS,**
which have been carried on for more than half a century by
MESSRS. GILL AND CO.,
and obtained a
HIGH REPUTATION FOR
SHOVELS AND OTHER TOOLS
as well as for
ENGINEERING AND FOUNDRY WORK
have been purchased by
MESSRS. NICHOLLS, MATHEWS, AND CO.,
BEDFORD IRONWORKS, TAVISTOCK.

For thirty years Messrs. NICHOLLS, MATHEWS, and Co., have been the proprietors of the latter works, but have now removed to the

TAVISTOCK FOUNDRY,
where, having the advantage of a never-failing stream of water of upwards of 200-horse power, they will have increased facilities for speedily and satisfactorily executing all orders entrusted to their care.

Manufacturers of STEAM ENGINES and BOILERS, on the newest principle; pump work, brass and iron; hammered iron shafts, of all sizes; miners' steel and iron tools.

N. M. AND CO. have had a LARGE EXPERIENCE in PREPARING MACHINERY for FOREIGN MINES, as well as selecting competent mechanics to erect the same.

N. M. AND CO. have always a LARGE STOCK of SECOND HAND MATERIALS.

**JOHN AND EDWIN WRIGHT
PATENTEE,
(ESTABLISHED 1770.)
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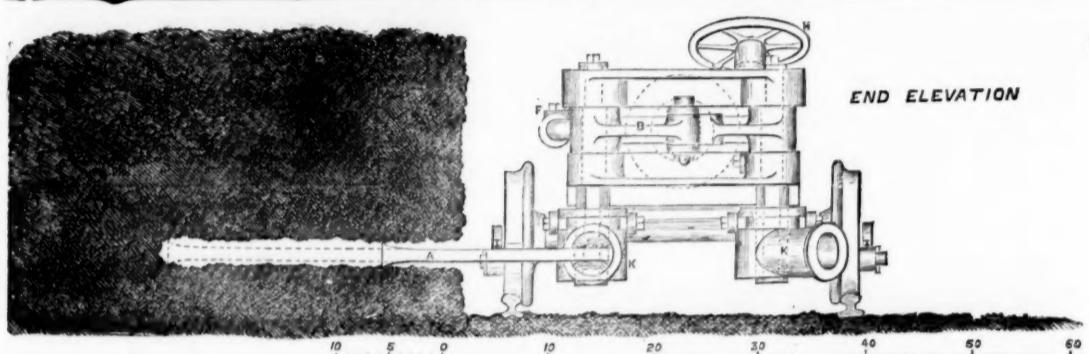
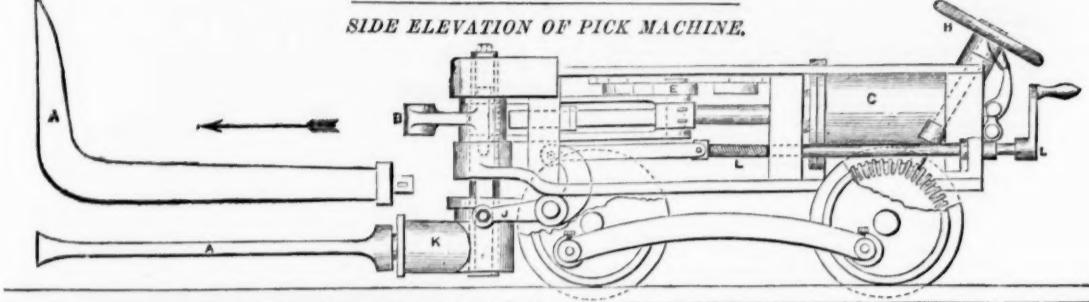
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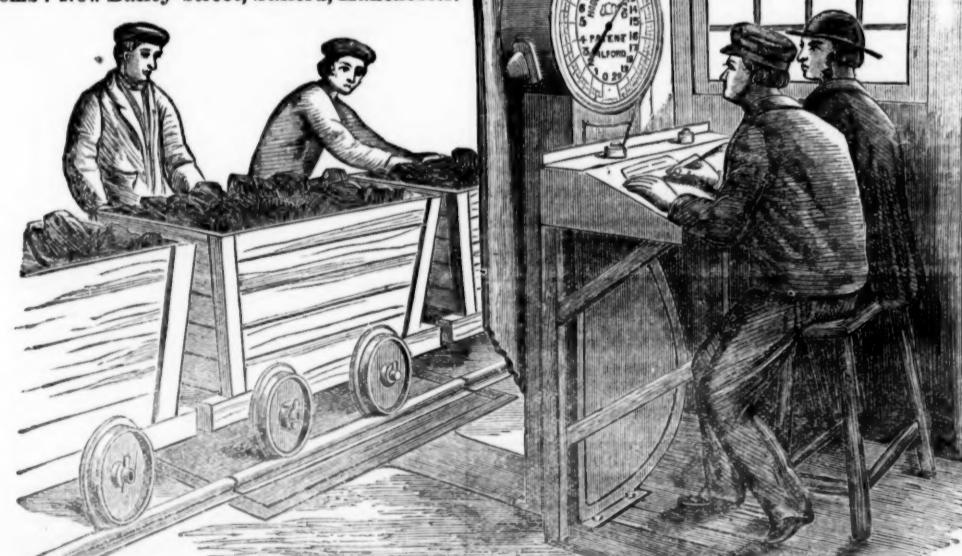
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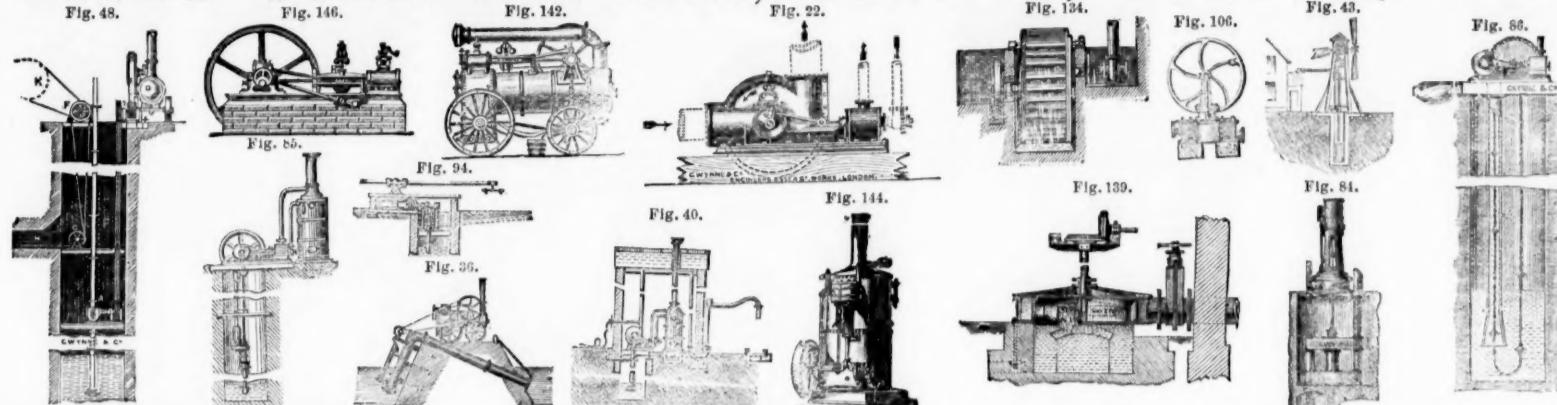


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Fig. 146.—Horizontal Engine, from 4 to 100-horse power.

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Fig. 139.—Turbine Water-wheel, from 1 to 300-horse power.

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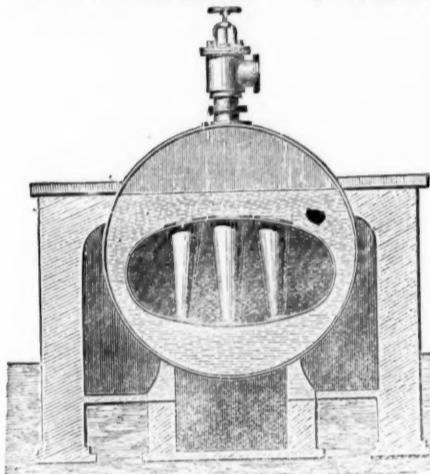
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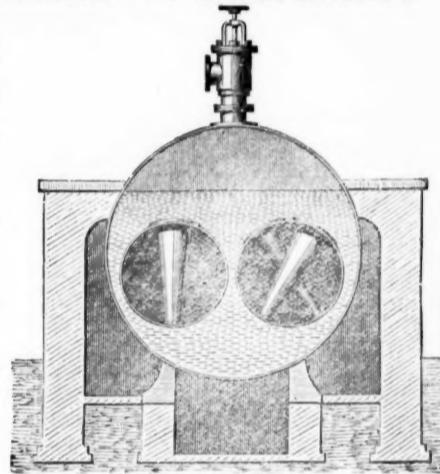
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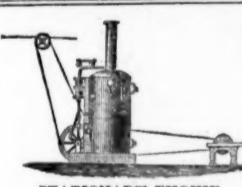
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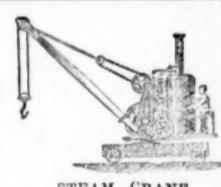
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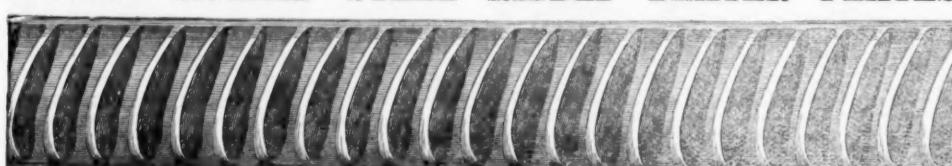
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2000 Botalack, t, c, St. Just 91 5 0 .. 260 .. 245 250 .. 554 5 0 .. 10 0 .. Aug. 1869

2000 Brynffordy, t, Cardigan* 1 0 0 .. 3/2 .. 3/2 .. 3/2 .. 1 7 0 .. 1 6 .. Oct. 1869

5094 Bwlch Consols, s, t, Cardigan* 4 0 0 .. 3/2 .. 3/2 .. 3/2 .. 0 6 0 .. 0 5 .. June 1869

6400 Cashwell, t, Cumberland* 2 10 0 .. — .. 0 6 0 .. 0 3 .. 6 .. Aug. 1869

1280 Chantrey, t, Flint* 0 7 8 .. — .. 0 1 6 .. 0 0 .. 0 6 .. Nov. 1869

2000 Cook's Kitchen, c, Illogan* 19 14 9 .. 14 .. 12 1/2 13 .. 2 19 6 .. 0 7 .. 6 .. Oct. 1869

509 Cook's Kitchen, c, Illogan* 1 0 0 .. — .. 2 1 5 .. 0 1 .. 5 0 .. April 1869

867 Cregibrawse and Penkevill, t, 7 10 0 .. — .. 31 3 0 .. 0 10 .. Oct. 1869

1000 Cwm Erynn, t, Cardigan* 60 0 0 .. — .. 387 10 0 .. 2 0 0 .. July 1869

2000 Derwent Mines, s, Durham* 300 0 0 .. — .. 177 0 0 .. 2 10 .. July 1869

1024 Devon Gt. Consols, c, Tavistock* 1 0 0 .. 145 .. 125 130 .. 1137 0 5 .. 5 0 .. Sept. 1869

455 Ding Dong, t, Gyllyng* 49 14 6 .. 25 .. 23 25 .. 5 .. 0 1 .. 10 .. Sept. 1869

143 Dolehouse, c, t, Camborne* 32 4 6 .. 128 .. 122 1/2 127 1/2 .. 230 2 6 .. 3 0 .. Oct. 1869

6144 Drake Walls, t, Calstock* 2 10 0 .. 1 .. 7 1 .. 1 .. 0 1 .. 0 1 .. Oct. 1869

6144 East Caradon, c, St. Cleer* 4 14 6 .. 6 1/2 .. 6 1/2 .. 14 .. 11 6 .. 0 2 .. 0 2 .. July 1869

900 East Darren, t, Cardiganshire* 32 0 0 .. — .. 174 0 0 .. 2 0 .. Sept. 1869

6400 East Pool, t, c, Pool, Illogan* 0 9 9 .. 7/4 .. 7 7/4 .. 9 12 9 .. 0 3 .. 3 .. Nov. 1869

1906 East Wheal Lovell, t, Wondron* 3 0 0 .. 19/2 .. 18/2 19/2 .. 6 16 0 .. 2 0 .. Oct. 1869

2500 Foxdale, t, Isle of Man* 25 0 0 .. — .. 74 5 0 .. 15 0 .. Oct. 1869

5000 Frank Mills, t, Christow* 3 18 6 .. 3/4 .. 3/4 3/4 .. 4 1 6 .. 0 4 .. Nov. 1869

3950 Gawton, c, Tavistock* 3 10 6 .. — .. 0 3 0 .. 0 3 .. Jan. 1869